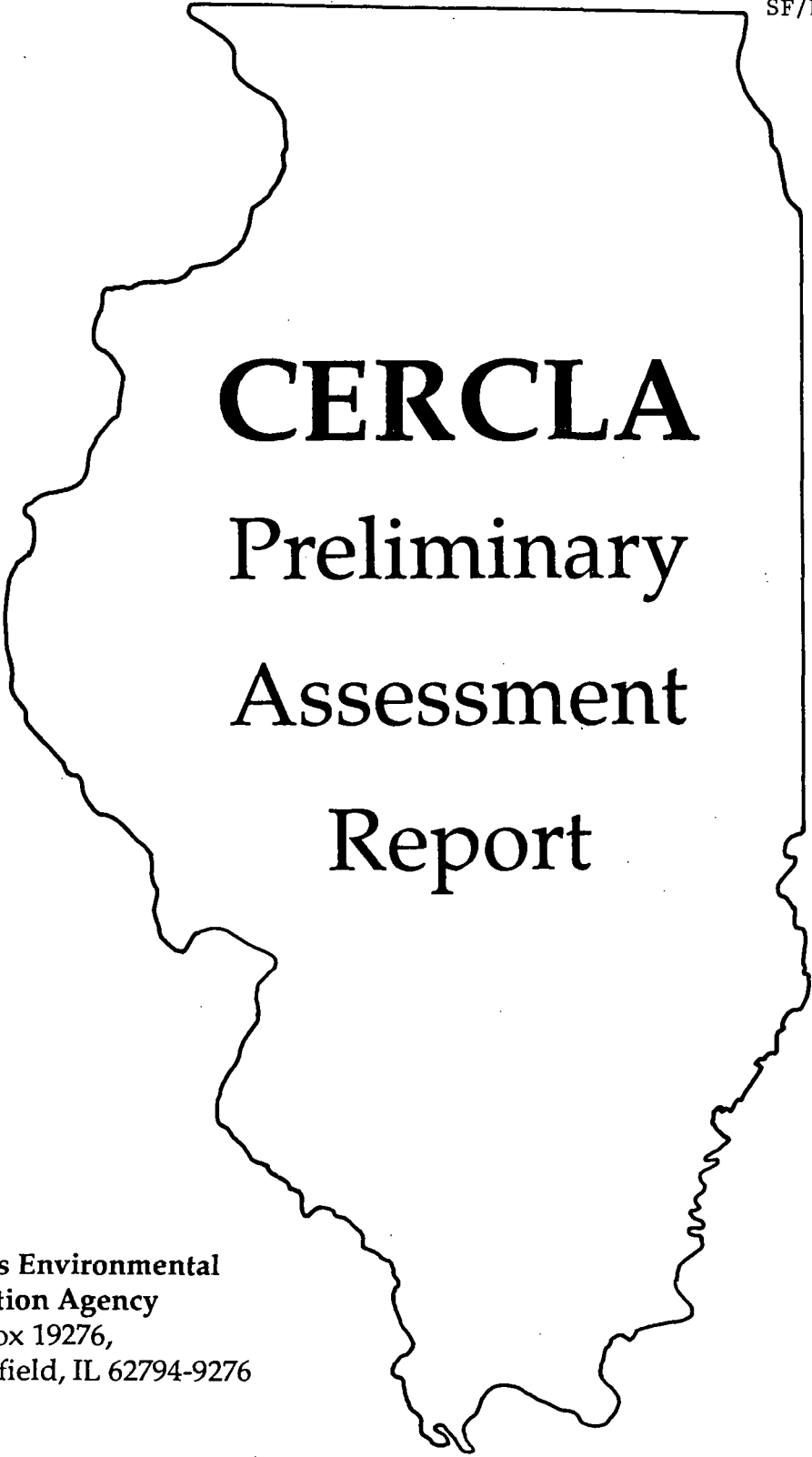


L 0311625023
Powell Duffryn - - Cook County
ILD 980823835
SF/HRS



CERCLA Preliminary Assessment Report



Illinois Environmental
Protection Agency
P.O. Box 19276,
Springfield, IL 62794-9276

EPA Region 5 Records Ctr.



373530

939803

Confidential Material May be Enclosed

**CERCLA PRELIMINARY ASSESSMENT
POWELL DUFFRYN
ILD 980823835**

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EXECUTIVE SUMMARY

Powell Duffryn Terminals Inc. (Powell Duffryn) is an active above ground bulk storage tank facility that leases storage and related distribution services (receive, store, and re-ship liquid products by truck, rail, and barge). Alexander Chemical Company, located within the site boundaries, is a manufacturer of water purification supplies, primarily a chlorine and bleach manufacturer for municipal water supplies and swimming pools. This site was placed on the Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) August 3, 1991 as a result of a site discovery action initiated made by the Illinois Environmental Protection Agency (IEPA). An IEPA field inspection expressed concerns due to the potential for hazardous substances to be released at the tank embankment, retention pond, and discharge areas.

SITE LOCATION

Powell Duffryn is located in the southeast quarter of the southeast quarter of Section 14, Township 37N, Range 11E of the Third Principal Meridian, Cook County, Illinois. Powell Duffryn is bordered on the north by the Chicago Sanitary and Ship Canal and the Cook-DuPage County line. The site is bordered by the Illinois Central Gulf Railroad to the south and open land and lagoons to the east and west. The site is approximately one hundred and twenty acres. Alexander

Chemical, located near the center of Powell Duffryn, is approximately two and one-half acres. Located within one mile of the site are Mt. Assisi Academy to the southwest, the Des Plaines River is north, and west is the Lemont East Forest Preserve. The northern tip of the site is intersected by the Illinois & Michigan Canal. North of the Des Plaines River is Rock Glen Forest Preserve and Argonne National Laboratory. Lemont is the nearest town to the site and is located 2.5 miles southwest of Powell Duffryn. Hannah Marine is located 0.25 miles northeast of Powell Duffryn. Currently, the Metropolitan Water Reclamation District is building a water treatment aeration facility for the Calumet Sag Channel at the Hannah site. An Expanded Site Inspection/Groundwater Pathway Assessment was prepared for Hannah Marine on October 31, 1991 for the USEPA.

Powell Duffryn uses the Chicago Sanitary and Ship Canal and the Illinois Central Gulf Railroad, and these routes are clearly visible on the enclosed aerial photograph and topographical map. The Illinois & Michigan Canal was built by the State of Illinois between 1836 and 1848 as a navigable waterway from the Great Lakes to the Mississippi River, but its use as a navigable waterway has been discontinued since 1933. There had been several title ownership concerns along the Illinois & Michigan Canal though the 1950's regarding the canal land, feeder, and a ninety foot reserve on each side of the canal (Howe, 1956). The Chicago Sanitary and Ship Canal

was built in 1890 to relieve unsanitary conditions prevailing in the City of Chicago and the Illinois & Michigan Canal, and as a result, the Chicago River flow was reversed from Lake Michigan into the Illinois River. Today, the Metropolitan Water Reclamation District owns much of the land along the Chicago Sanitary and Ship Canal, including sixty-six acres leased by Powell Duffryn as a western buffer. The Chicago Sanitary and Ship Canal was constructed parallel to and directly north of the Illinois & Michigan Canal. Fill from the Chicago Sanitary and Ship Canal construction was put into the Illinois & Michigan Canal.

The Chicago Sanitary and Ship Canal and the Illinois & Michigan Canal enter the Des Plaines Rivers approximately fourteen and fifteen miles respectively, down stream from Powell Duffryn. The Calumet Sag Channel opened in 1922 and flows westward from the Little Calumet River and into the Chicago Sanitary and Ship Canal. The Chicago Sanitary and Ship Canal and the Calumet Sag Channel are major waterways for barge traffic between inland industries and Chicago area ports along Lake Michigan. Many types of raw materials such as chemicals, sand and gravel, coal, petroleum products, and grains are transported on canal barges. The U.S. Coast Guard regulates barge traffic and product handling procedures along the Chicago Sanitary & Ship Canal. The Metropolitan Water Reclamation District collects water samples along the Chicago Sanitary and Ship Canal. In order to reach the site from

Interstate 55, travel south on Route 83 past the Des Plaines River to Chicago & Joliet Road, go west one mile on the Chicago & Joliet Road to Parker Road, go north on Parker Road, and follow the Powell Duffryn signs..

SITE HISTORY

The earliest activity on this site, as identified in this report, is from a 1963 United State Geological Survey (USGS) topographical map showing a railroad spur with a building and two tanks. A 1953 USGS topographical map of the area shows no railroad spur, buildings, or tanks, and identifies the area between the Illinois & Michigan Canal and Chicago Sanitary and Ship Canal as a land depression. According to company letters, the entire site was owned by North American Car Corporation from 1965 to January, 1983. North American Car Corporation operations included steam cleaning, repair, relining, painting, leasing, and selling railroad cars. Railroad tank car operations are believed to have ceased in 1980. In January, 1983 Powell Duffryn purchased North American Car Corporation's bulk commodity storage facilities but did not purchase any of its tank car or chemical operations. A May 10, 1989 IEPA report prepared on Alexander Chemical (a Division of North American Car) identified residual tallow (animal fat), and ignitable liquids (D001), and ignitable reactives (D002) on site.

SITE COMPLIANCE

During March, 1976 a gasket failure resulted in waste water samples from North American Car Corporation briefly exceeding IEPA limits for hexane soluble, suspended solids, and pH content. The April, 1976 water samples were within limits. On February 4, 1986, Alexander Chemical spilled 350 gallons of styrene during a truck loading operation. The styrene was cleaned-up that same day by a contractor and taken off site. Powell Duffryn exceeded effluent limits of its National Pollutant Discharge Elimination System (NPDES) permit from January 1987, to May, 1990, which resulted in a 1992 Court Consent Order. Powell Duffryn believes Alexander Chemical violated the (NPDES) limits for the shared waste water outfall. During a March 27, 1991 inspection of Powell Duffryn's dock, the U.S. Coast Guard found an exposed light socket and an unmarked cargo hose, both which were corrected. During 1991, Powell Duffryn received 900,000 gallons of "refined ethylene glycol" from a customer. On August 8, 1991 this material was sampled by the IEPA and 400 parts per million of carbon tetrachloride was discovered. The material was removed via three barges on November 12, 1991.

There was no Powell Duffryn information identified in the IEPA, Emergency Response Unit file, which responds and records spills in Illinois. Under the Resource Conservation and Recovery Act (RCRA) Powell Duffryn is a large quantity generator, as identified in an IEPA Powell Duffryn manifest

file search dated January 1, 1988 to July 29, 1992. Alexander Chemical and Powell Duffryn do not treat, store, or dispose of hazardous waste.

SITE RECONNAISSANCE

On August 4, 1992 Kim Nika and John Sherrill of the IEPA conducted a three hour onsite reconnaissance of Powell Duffryn. James Durham of Powell Duffryn conducted the tour. The focus of the site reconnaissance was to review current operations, and evaluate the potential impact from the release of hazardous substances. The dock, truck loading, and retention pond areas were of primary interest. Powell Duffryn receives approximately ninety percent of its products by barge, and also handles approximately one hundred trucks a day, five days a week, as well as utilizing a railroad spur. Powell Duffryn was in operation and there was no visual evidence of any spills.

There are approximately one hundred and eighteen bulk storage tanks, ranging from 10,000 to 1,500,000 gallons each, on site. There are no known underground storage tanks on site. Powell Duffryn's commonly held hazardous substances are xylene, isopropyl alcohol, methanol, ethylene glycol, hydrogen peroxide, isopropanol, ethylene dichloride, acetone, and trichloroethylene, which were identified from an August 4, 1992 inventory list. No known benzene is stored by Powell Duffryn. Powell Duffryn stores a few dry products in its on

site antifreeze blending and packaging facility. All products that Powell Duffryn stores are sampled for quality assurance. Samples are held one month unless a concern is expressed, otherwise the samples are discarded without any analytical tests performed.

GROUNDWATER EXPOSURE PATHWAY

The general area is located in the Valparasio Maorainci system (Keeneyville Moraine), a twelve mile wide band running in northern Illinois from the Wisconsin border south-southeast to the Indiana border (Willman, 1970). Powell Duffryn lies near the western edge of the Wheaton Morainial Country in a flat, low-lying valley that is part of the Des Plaines River (Willman, 1971).

The Des Plaines River area is a 1.0 mile band of Cahokia Alluvium, which consists of poorly sorted silt and sand containing local deposits of sandy gravel. The Calumet Sag Channel area is an 0.5 mile wide band of Grayslake Peat, consisting of peat and muck, which are dominantly organic deposits with interbedded silt and clay in some places. According to a 1979 U.S. Department of Agriculture report the local undisturbed soils is Romeo silt loam, which consists of a five inch layer of loam overlying carbonate bedrock, and Orthents stony (stones and boulders from the construction of the nearby waterways). Till deposits are primarily moraines, and are unsorted and range in texture from dense clay-rich

material to gravel-and sand-rich material (Zeizel et al., 1962; Willman, 1971).

The greater Chicago area is on the broad, gently sloping Kankakee Arch of the Paleozoic bedrock formation. Silurian rocks form the bedrock surface throughout most of this region and have a maximum thickness of nearly five hundred feet in the southeastern part. The dolomite in much of northeastern Illinois is well creviced and fractured, and is especially good for groundwater where it is overlain by drift containing sand and gravel deposits. Sandstone is also an important water yielding rock of northeastern Illinois and occurs at a depth of several hundred feet or more. The dolomite aquifers covers approximately two-thirds of northeastern Illinois, while the sand and gravel aquifers are often thin and limited in areal extent. According to a August, 1989 U.S. Environmental Protection Agency report the permeability of the unsaturated zone is 1×10^{-3} cm/sec and is composed of sand and gravel.

The groundwater system consists of five basic geohydrological units which are discussed below:

- (1) The first unit is glacial drift aquifers, and consists of sand and gravel surficial glacial deposits. These glacial drift deposits range in thickness from fifty to one hundred fifty feet. Well depths range from sixty-one to one hundred thirty-six feet and produce from

fifty to two hundred gallons per minute (Woller et al., 1986).

- (2) The second unit is Silurian dolomite aquifers, which have a zone of saturation existing primarily in rock joints and fractures. These rocks are encountered from twenty-five to two hundred feet below the surface and range in thickness from about fifty feet to one hundred seventy-five feet. Wells in this group range in depth from seventy-five to two hundred sixty-five feet and produce from two hundred to two thousand five hundred gallons per minute (Woller et al., 1986).
- (3) The leaky confining bed of the Maquoketa Group is the next unit and consists primarily of shales. The Maquoketa is relatively impermeable and ranges in thickness from one hundred forty to two hundred thirty-five feet and lies below the surface from one hundred fifty to two hundred fifty feet deep (Woller et al., 1986).
- (4) The next unit consists of the Cambrian-Ordovician aquifers, which lies under the Maquoketa Group, and contains the Galena Group, Plateville Group, Prairie du Chen Group, and the Glenwood Sandstone and St. Peter Sandstone (Woller et al., 1986). The deep Cambrian-Ordovician aquifer is a major aquifer of northeastern Illinois and its water level has dramatically decreased due to heavy use over the last century. This unit lies at depths from three hundred fifty to four hundred fifty

feet below the surface. Wells range in depth from one thousand three hundred fifty-six feet to one thousand six hundred thirty feet and yield from five hundred to one thousand three hundred fifty gallons per minute.

- (5) The next unit is the confining beds of the Eau Claire Formation, which underlies the Ironton and Galesville sandstones. This unit is approximately one thousand seven hundred feet to one thousand nine hundred feet below the surface. The Galesville Sandstone underlies all of northeastern Illinois and is considered the best bedrock aquifer in Illinois. Its average thickness is approximately one hundred thirty five to one hundred sixty feet. The Eau Claire formation acts as a relatively impermeable confining layer (Woller et al., 1986).

Powell Duffryn has a one thousand five hundred feet deep well located in its boiler house. This well supplies a one million gallon storage tank utilized by Powell Duffryn, and two nearby business operations, for non-drinking purposes. The Powell Duffryn well log, obtained from the Illinois State Geological Survey, shows three feet of fill, followed by seven feet of broken lime, followed by one hundred eighty-eight feet of limestone, followed by sixty-one feet of shale, followed by nine hundred eighty feet of intermittent layers of shale and limestone, and sandstone is encountered at one thousand three hundred feet.

At the Hannah site, groundwater flow in the shallow bedrock aquifer is believed to be north toward the Des Plaines River. The groundwater flow at Powell Duffryn is not known and could be affected by river and canal water stages, local area wells and seasonal variation. The principal target aquifers of Powell Duffryn is the shallow upper bedrock aquigroup (Woller et al., 1986).

The closest potable well is approximately 0.25 miles south of the site and is one hundred forty-five feet deep. Powell Duffryn and other local industry employees drink bottled water. A breakdown of the number of potable wells within four miles of the site is listed below.

DISTANCE IN MILES	NO. OF PRIVATE & PUBLIC WELLS	PUBLIC WELL POPULATION	TOTAL POPULATION USING WELLS	TOTAL RESIDENTIAL POPULATION
0 - 1/4	1	3	3	300
1/4 - 1/2	0	0	0	5
1/2 - 1	8	0	505	505
1 - 2	6*	9,427	11,077	6,035
2 - 3	4*	4,136	4,136	9,261
3 - 4	14*	51,406	51,710	7,198

* Wells located within a specified radius with service connections outside that radius

SURFACE WATER PATHWAY

According to the United States Department of Commerce the average annual precipitation in the area is 33.42 inches (for the period of 1931 - 1960). The climate is temperate cold (January mean 21.1 F) and dry in the winter, and hot (July mean 72.2 F) and humid in the summer. The average snowfall is 38.3 inches.

Overflow from Powell Duffryn storage tanks, if not contained by its dike system, flows to two retention ponds and eventually to the Illinois & Michigan Canal. Alexander Chemical waste water combines with Powell Duffryn's into the dike system. Prior to September 15, 1990, waste water from the site was drained directly to the main retention pond via a system of drainage ditches and a secondary pond. At that time, no drainage control equipment or positive shut-off valves were in operation to control discharge from the drainage ditches into the main retention pond. During September, 1990 Powell Duffryn installed a drainage control system to control wastewater from the drainage ditches and secondary pond into the main retention pond. The main retention pond holds approximately 1.5 million gallons. The two retention ponds are connected by a sluice, and a sluice connects the lower retention pond to a ditch that discharges to the Illinois & Michigan Canal.

The fifteen mile downstream limit for surface water discharge is located in Joliet. According to U.S. Fish and Wildlife Service Wetland Maps, there are 0.5 miles of wetlands (PFOIC) frontage located 0.2 miles downstream on the Illinois & Michigan Canal, and 0.1 miles of wetlands (LIUBh) frontage fourteen miles downstream on the Des Plaines River. The Illinois Department of Conservation reports Waterfall Glen Preserve, located one-half mile north of the site, as a sensitive environment. There are intermittent fishing ponds along/in the Illinois and Michigan Canal, and the 1953 through the current USGS topographical maps show several ponds located one mile east of Powell Duffryn. There are no known drinking water surface water intakes along the Chicago Sanitary & Ship Canal, Des Plaines River, or Illinois & Michigan Canal within fifteen miles downstream of the site.

All but twenty-two storage tanks are surrounded by earthen dikes rated at one hundred ten percent capacity. According to the NPDES permit, Powell Duffryn is classified as a minor industrial facility with discharge of non-contact cooling water, boiler blowdown, safety systems water and stormwater. Powell Duffryn utilizes a combination of tank monitoring, inspections, and a plant drainage system to lessen a spill's impact, and is described in its Spill, Prevention, Control, and Countermeasure Plan (SPCC, 40 CFR-112). However, spills can occur directly into the Chicago Sanitary and Ship Canal through product handling operations.

According to a United States Geological Survey topographical map, the site is approximately five hundred ninety five feet above mean sea level and the terrain is relatively flat. The site is outside a five hundred year flood plain. The Chicago Sanitary & Shipping Canal is approximately seven feet below site grade. Generally, the Des Plaines River drains parts of DuPage and Cook County including the Powell Duffryn area, but some sloughs, bogs, and kettles are near the site, and are undrained.

The Illinois and Michigan Canal drainage is fifty-five square miles at its mouth in Joliet, Illinois. The Chicago Sanitary and Ship Canal drainage is seven hundred forty square miles at its mouth, while just upstream from Powell Duffryn the drainage is three hundred forty-six square miles. The drainage area for the Chicago Sanitary and Ship Canal at Romeoville is seven hundred thirty-nine square miles and the average discharge is approximately seven hundred forty cubic feet per second (USGS, 1992). The Chicago Sanitary and Ship Canal has approximately sixteen to twenty-two feet of water. The Des Plaines River spills into the Illinois River, and the total drainage area of the Des Plaines River is 2,111 square miles. The drainage for the Des Plaines River at the Joliet, USGS gage is 1,503 square miles. The drainage area is six hundred thirty square miles for the Des Plaines River at the USGS station at Riverside, Illinois, fifteen miles upstream from Powell Duffryn. The average discharge of the Des Plains

River at Riverside is approximately five hundred thirteen cubic feet per second.

SOIL EXPOSURE PATHWAY

The site is restricted by a fence and a full-time security guard service. Powell Duffryn has from seventy-five to one hundred employees, Murphy Chemical Inspection Company has four employees, and Alexander Chemical has approximately twenty employees. The main roadways at the terminal are paved with asphalt.

AIR EXPOSURE PATHWAY

Powell Duffryn has an Illinois Environmental Protection Agency air permit. There are no homes or schools within 0.5 miles of the site. Approximately 23,300 people reside within four miles of the site. The bulk storage tanks are equipped with a system that signals vapor pressure buildup.

SITE RECOMMENDATION

The information gathered for this report indicates the site stores an abundance of hazardous products. A release of these products could constitute a substantial risk to human life and health and a threat to the environment. Except for waste water, there have been no current reports or complaints of product releases. The site currently seems to have an adequate containment system. However, because of the unknown nature of past waste operational practices, soil

investigations along the Illinois and Michigan Canal are advised. The author recommends a low priority for this site.

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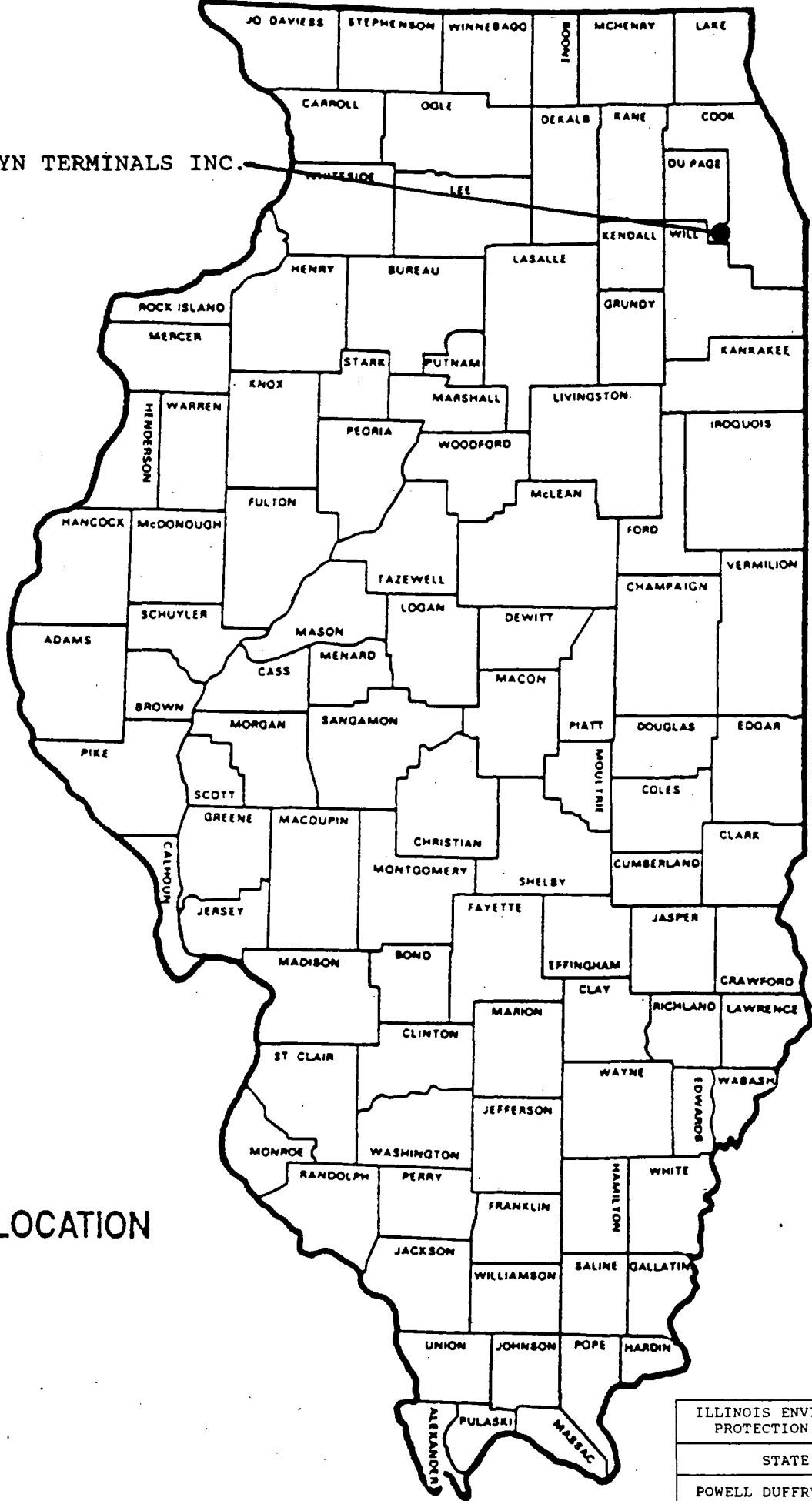
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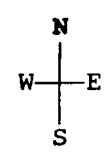
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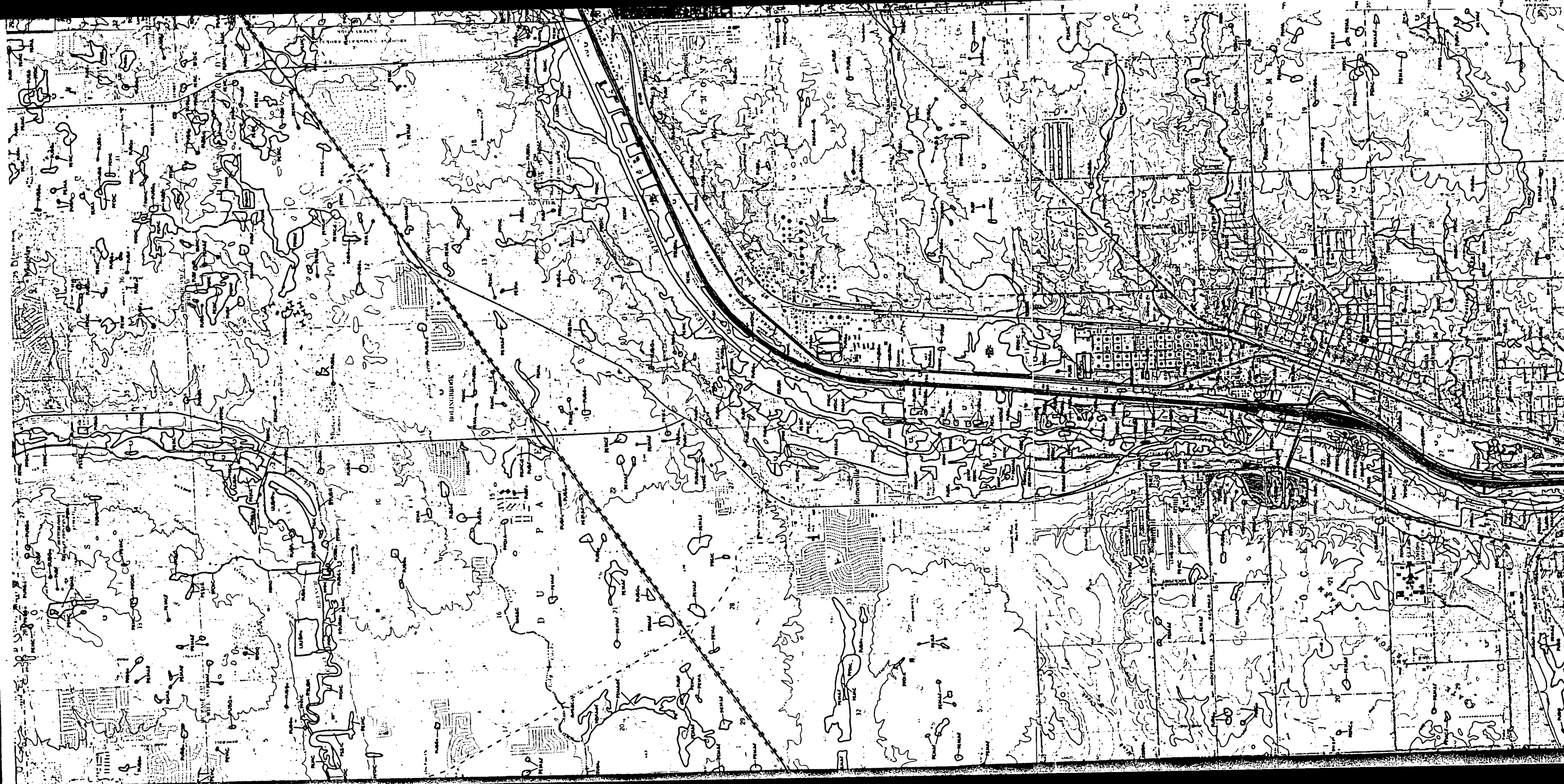
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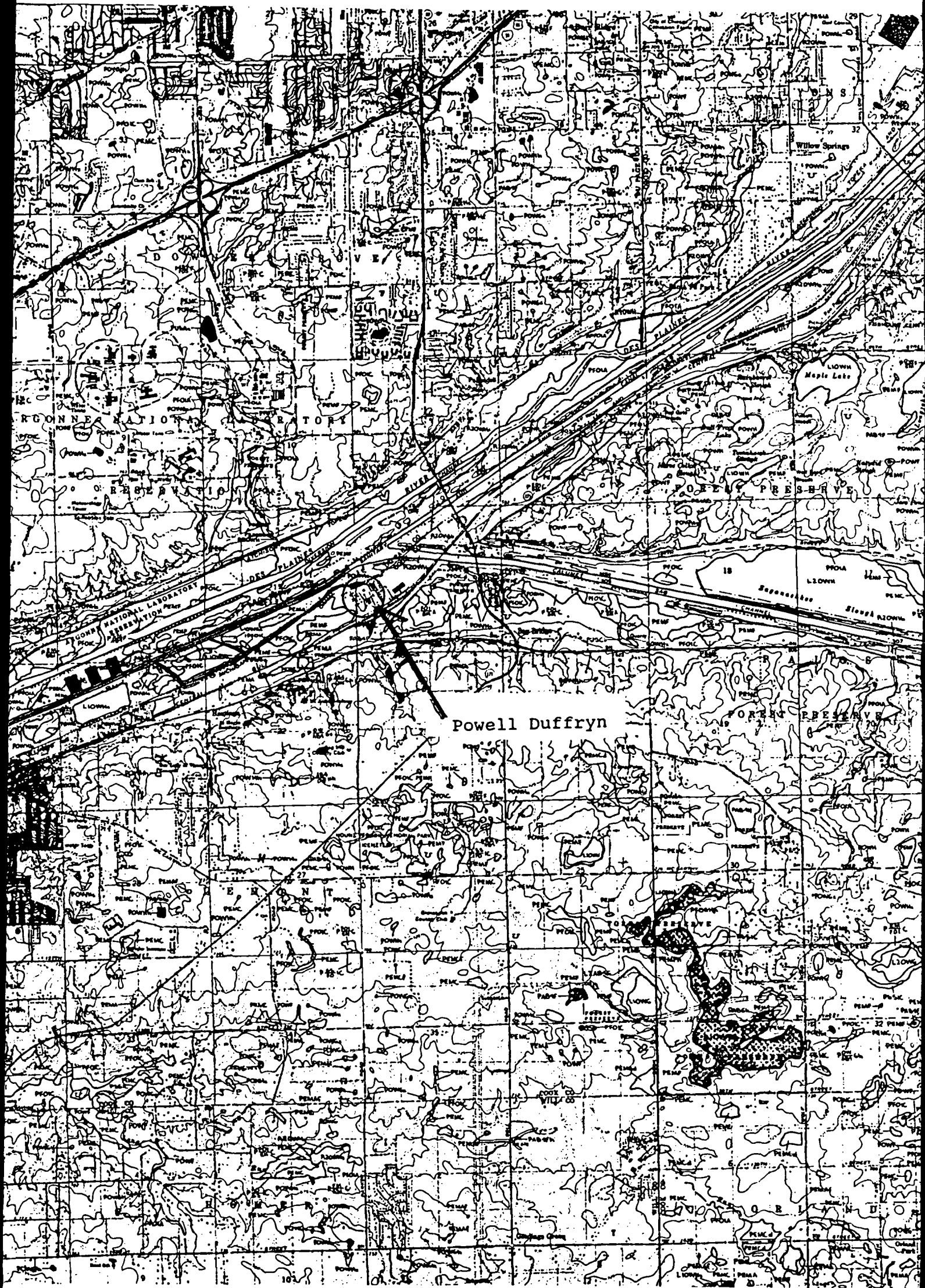


SITE LOCATION



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
STATE MAP
POWELL DUFFRYN TERMINAL
1992





ILLINOIS ENVIRONMENTAL PROTECTION AGENCY	SITE: Powell Duffryn Terminal SITE ILD #980823835
15-MILE SURFACE WATER MAP	
LEGEND — Site Location	N W—E

DATE: 8-4-92

TIME: 10:50 a.m.

PHOTOGRAPH TAKEN BY:
KIM NIKA

PHOTO NUMBER: 1

LOCATION:
COOK COUNTY
POWELL DUFFRYN
ILD 980823835

PHOTO TAKEN TOWARD:
EAST.
TAKEN FROM SLUICE
GATE ON WESTERN
EDGE OF WESTERN
RETENTION POND



DATE: 8-4-92

TIME: 10:51 a.m.

PHOTOGRAPH TAKEN BY:
KIM NIKA

PHOTO NUMBER: 2

LOCATION:
COOK COUNTY
POWELL DUFFRYN
ILD 980823835

PHOTO TAKEN TOWARD:
EAST.
TAKEN FROM SLUICE
GATE ON WESTERN
EDGE OF WESTERN
RETENTION POND



DATE: 8-4-92

TIME: 10:52 a.m.

PHOTOGRAPH TAKEN BY:
KIM NIKA

PHOTO NUMBER: 3

LOCATION:
COOK COUNTY
POWELL DUFFRYN
ILD 980823835

PHOTO TAKEN TOWARD:
EAST-NORTHEAST.
TAKEN FROM SLUICE
GATE ON WESTERN
EDGE OF WESTERN
RETENTION POND.



DATE: 8-4-92

TIME: 10:53 a.m.

PHOTOGRAPH TAKEN BY:
KIM NIKA

PHOTO NUMBER: 4

LOCATION:
COOK COUNTY
POWELL DUFFRYN
ILD 980823835

PHOTO TAKEN TOWARD:
EAST.
TAKEN FROM WESTERN
BANK OF WESTERN
RETENTION POND.



DATE: 8-4-92

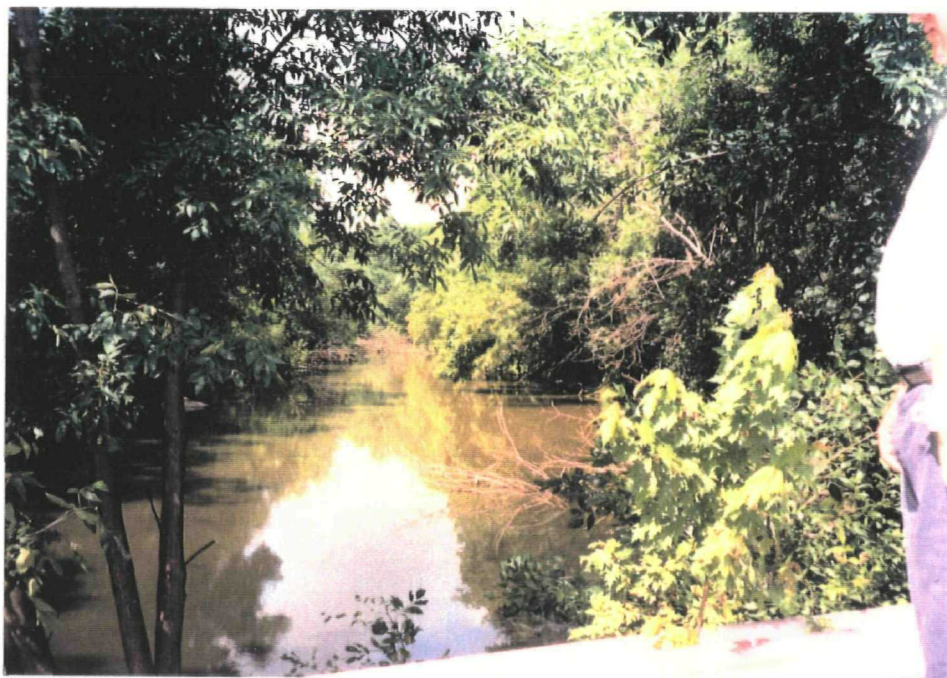
TIME: 10:54

PHOTOGRAPH TAKEN BY:
KIM NIKA

PHOTO NUMBER: 5

LOCATION:
COOK COUNTY
POWELL DUFFRYN
ILD 980823835

PHOTO TAKEN TOWARD:
WEST.
TAKEN FROM SLUICE GATE
ON WESTERN EDGE OF
WESTERN RETENTION POND.
PHOTO OF ILLINOIS &
MICHIGAN CANAL.



DATE: 8-4-92

TIME: 10:59

PHOTOGRAPH TAKEN BY:
KIM NIKA

PHOTO NUMBER: 6

LOCATION:
COOK COUNTY
POWELL DUFFRYN
ILD 980823835

PHOTO TAKEN TOWARD:
EAST-NORTHEAST
TAKEN FROM WESTERN
END OF CHICAGO SANITARY
& SHIP CANAL. PHOTO OF
BARGE DOCK.



DATE: 8-4-92

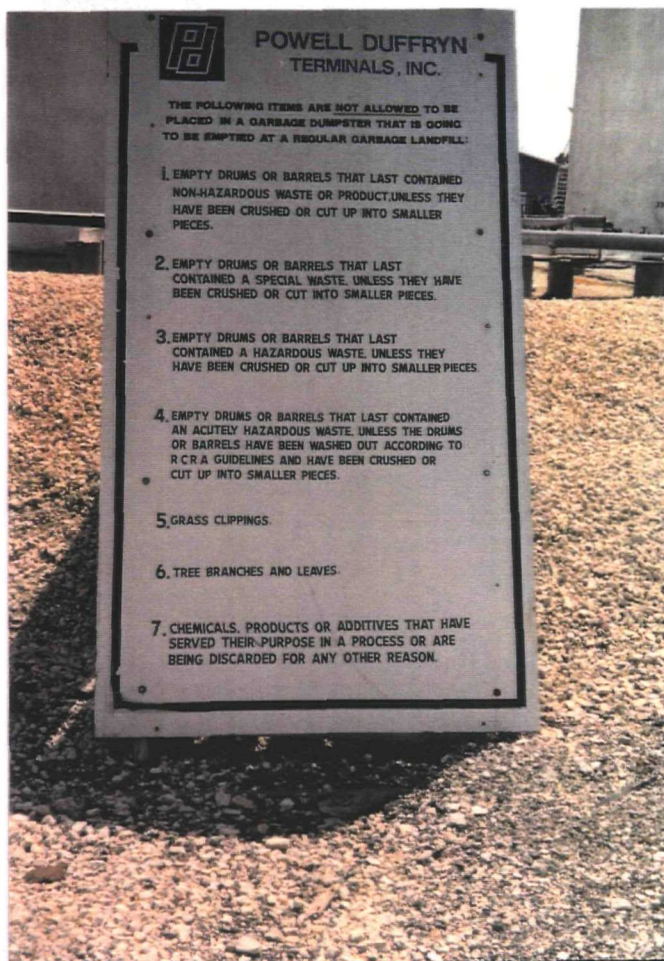
TIME: 11:20 a.m.

PHOTOGRAPH TAKEN BY:
KIM NIKA

PHOTO NUMBER: 7

LOCATION:
COOK COUNTY
POWELL DUFFRYN
ILD 980823835

PHOTO TAKEN TOWARD:
SOUTH.
SIGN LOCATED IN SOUTHEASTERN
PART OF TERMINAL.



DATE: 8-4-92

TIME: 11:51 a.m.

PHOTOGRAPH TAKEN BY:
KIM NIKA


PHOTO NUMBER: 8

LOCATION:
COOK COUNTY
POWELL DUFFRYN
ILD 980823835

PHOTO TAKEN TOWARD:
SOUTH.
SAMPLE AND WASTE
CONTAINMENT BUILDING
UNDER CONSTRUCTION.



OMB Approval Number: 2050-0095
Approved for Use Through: 1/92

 Potential Hazardous Waste Site Preliminary Assessment Form		Identification	
		State:	CERCLIS Number: IL0 980823835
		CERCLIS Discovery Date: 8/3/91	
1. General Site Information			
Name: POWELL DUFFRYN TERMINALS INC.		Street Address: MAIN STREET NE OF PARKER ROAD	
City: LEMONT	State: IL	Zip Code: 60439	County: COOK Co. Code: Cong. Dist:
Latitude: 41° 41' 35.00"	Longitude: 87° 51' 13.00"	Approximate Area of Site: 120 Acres Square Ft	Status of Site: <input checked="" type="checkbox"/> Active <input type="checkbox"/> Not Specified <input type="checkbox"/> Inactive <input type="checkbox"/> NA (GW plume, etc.)
2. Owner/Operator Information			
Owner: POWELL DUFFRYN TERMINALS INC.		Operator: POWELL DUFFRYN TERMINALS INC.	
Street Address: MAIN STREET NE OF PARKER ROAD		Street Address: MAIN STREET NE OF PARKER ROAD	
City: LEMONT		City: LEMONT	
State: IL	Zip Code: 60439	Telephone: (708) 257-6222	State: IL Zip Code: 60439 Telephone: (708) 257-6222
Type of Ownership: <input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal Agency Name: _____ <input type="checkbox"/> State <input type="checkbox"/> Indian <input type="checkbox"/> County <input type="checkbox"/> Municipal <input type="checkbox"/> Not Specified <input type="checkbox"/> Other: _____		How Initially Identified: <input type="checkbox"/> Citizen Complaint <input type="checkbox"/> PA Petition <input checked="" type="checkbox"/> State/Local Program <input type="checkbox"/> RCRA/CERCLA Notification <input type="checkbox"/> Federal Program <input type="checkbox"/> Incidental <input type="checkbox"/> Not Specified <input type="checkbox"/> Other: _____	
3. Site Evaluator Information			
Name of Evaluator: JOHN SHERRILL		Agency/Organization: IEPA-RPMS-LPC	Date Prepared: 9/11/92
Street Address: 2200 CHURCHILL ROAD		City: SPRINGFIELD	State: IL
Name of EPA or State Agency Contact: TOM GRAUSE		Street Address: 2200 CHURCHILL ROAD	
City: SPRINGFIELD		State: IL	Telephone: (217) 782-6760
4. Site Disposition (for EPA use only)			
Emergency Response/Removal Assessment Recommendation: <input type="checkbox"/> Yes <input type="checkbox"/> No Date: _____		CERCLIS Recommendation: <input type="checkbox"/> Higher Priority SI <input type="checkbox"/> Lower Priority SI <input type="checkbox"/> NFRAP <input type="checkbox"/> RCRA <input type="checkbox"/> Other: _____ Date: _____	Signature: Name (typed): Position:



Potential Hazardous Waste Site
Preliminary Assessment Form - Page 2 of 4

CERCLIS Number:

IL0 980823835

5. General Site Characteristics

Predominant Land Uses Within 1 Mile of Site (check all that apply):

- | | | |
|---------------------------------------------------|--------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Industrial | <input type="checkbox"/> Agriculture | <input type="checkbox"/> DOI |
| <input type="checkbox"/> Commercial | <input type="checkbox"/> Mining | <input type="checkbox"/> Other Federal Facility |
| <input type="checkbox"/> Residential | <input type="checkbox"/> DOD | |
| <input checked="" type="checkbox"/> Forest/Fields | <input type="checkbox"/> DOB | <input type="checkbox"/> Other _____ |

Site Setting:

- ☐ Urban
☐ Suburban
☒ Rural

Years of Operation:

Beginning Year 1965

Ending Year _____

☐ Unknown

Type of Site Operations (check all that apply):

☐ Manufacturing (must check subcategory)

- ☐ Lumber and Wood Products
☐ Inorganic Chemicals
☐ Plastic and/or Rubber Products
☐ Paints, Varnishes
☒ Industrial Organic Chemicals
☐ Agricultural Chemicals
(e.g., pesticides, fertilizers)
☐ Miscellaneous Chemical Products
(e.g., adhesives, explosives, ink)
☐ Primary Metals
☐ Metal Coating, Plating, Engraving
☐ Metal Forging, Stamping
☐ Fabricated Structural Metal Products
☐ Electronic Equipment
☐ Other Manufacturing

☐ Mining

- ☐ Metals
☐ Coal
☐ Oil and Gas
☐ Non-metallic Minerals

- ☐ Retail
☐ Recycling
☐ Junk/Salvage Yard
☐ Municipal Landfill
☐ Other Landfill
☐ DOD
☐ DOB
☐ DOI
☐ Other Federal Facility _____

☒ RCRA

- ☐ Treatment, Storage, or Disposal
☒ Large Quantity Generator
☐ Small Quantity Generator
☐ Subtitle D
☐ Municipal
☐ Industrial
☐ "Converter"
☐ "Protective Filer"
☐ "Non- or Less Filer"

☐ Not Specified

☒ Other STORAGE

Waste Generated:

- ☒ Onsite
☐ Offsite
☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☒ Present Owner
☐ Former Owner
☐ Present & Former Owner
☐ Unauthorized
☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
☒ No

Distance to Nearest Dwelling,
School, or Workplace:

3,700 Feet

6. Waste Characteristics Information

Source Type:
(check all that apply)

- ☐ Landfill
☐ Surface Impoundment
☐ Drums
☒ Tanks and Non-Drum Containers
☐ Chemical Waste Pile
☐ Scrap Metal or Junk Pile
☐ Tailings Pile
☐ Trash Pile (open dump)
☐ Land Treatment
☐ Contaminated Ground Water Plume
(unidentified source)
☐ Contaminated Surface Water/Sediment
(unidentified source)
☐ Contaminated Soil
☐ Other _____
☐ No Sources

Source Waste Quantity:
(include units)

12,675,718
GALLONS

Tier^a:

V

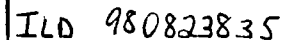
General Types of Waste (check all that apply)

- | | |
|-----------------------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> Metals | <input type="checkbox"/> Pesticides/Herbicides |
| <input checked="" type="checkbox"/> Organics | <input type="checkbox"/> Acids/Bases |
| <input type="checkbox"/> Inorganics | <input type="checkbox"/> Oily Waste |
| <input checked="" type="checkbox"/> Solvents | <input type="checkbox"/> Municipal Waste |
| <input type="checkbox"/> Paints/Pigments | <input type="checkbox"/> Mining Waste |
| <input type="checkbox"/> Laboratory/Hospital Waste | <input type="checkbox"/> Explosives |
| <input type="checkbox"/> Radioactive Waste | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Construction/Demolition
Waste | |

Physical State of Waste as Deposited (check all that
apply):

- ☐ Solid ☐ Sludge ☐ Powder
☒ Liquid ☐ Gas

^a C = Constituent, W = Waste stream, V = Volume, A = Area



0 - ¼ Miles	3
> ¼ - ½ Miles	0
> ½ - 1 Miles	505
> 1 - 2 Miles	11,077
> 2 - 3 Miles	4,136
> 3 - 4 Miles	51,710
Total Within 4 Miles	67,428

ILLINOIS & MICHIGAN	0
CANAL	



Potential Hazardous Waste Site
Preliminary Assessment Form - Page 4 of 4

CERCLIS Number:

TLD 980823835

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☒ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☒ Yes
☐ No

List Secondary Target Wetlands:

Water Body	Flow (cfs)	Frontage Miles
I&M Canal	0	

Other Sensitive Environments Located Along the Surface Water Migration Path:

☒ Yes
☐ No

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☒ No

List Secondary Target Sensitive Environments:

Water Body	Flow (cfs)	Sensitive Environment Type
I&M Canal	0	Canal
Chicago Sanitary	3873	
& Ship Canal		
Des Plaines River	1,004	RIVER

9. Soil Exposure Pathway

Are People Occupying Residences or
Attending School or Daycare on or Within 200
Feet of Areas of Known or Suspected
Contamination:

☐ Yes
☒ No

If Yes, Enter Total Resident Population:

0 People

Number of Workers Onsite:

☐ None
☐ 1 - 100
☒ 101 - 1,000
☐ > 1,000

Have Terrestrial Sensitive Environments Been Identified on
or Within 200 Feet of Areas of Known or Suspected
Contamination:

☐ Yes
☒ No

If Yes, List Each Terrestrial Sensitive Environment:

10. Air Pathway

Is There a Suspected Release to Air:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite	300
0 - 1/4 Mile	0
> 1/4 - 1/2 Mile	5
> 1/2 - 1 Mile	505
> 1 - 2 Miles	6,035
> 2 - 3 Miles	9,261
> 3 - 4 Miles	7,198
Total Within 4 Miles	23,304

Wetlands Located Within 4 Miles of the Site:

☒ Yes
☐ No

Other Sensitive Environments Located Within 4 Miles of the Site:

☒ Yes
☐ No

List All Sensitive Environments Within 1/4 Mile of the Site:

Distance	Sensitive Environment Type/Wetlands Area (acres)
Onsite	
0 - 1/4 Mile	
> 1/4 - 1/2 Mile	WATERFALL GLEN PRESERVE

POWELL DUFFRYN
SUPPORTING DOCUMENTS
Table of Contents

<u>Reference Number</u>	<u>Documentation</u>
01	September 21, 1983 Powell Duffryn letter regarding site ownership, and May 8, 1985 letter of same.
02	August 4, 1992 Powell Duffryn inventory listing of tanks and products.
03	November 13, 1991 IEPA inspection report. May 13, 1992 letter and November 22, 1991 IEPA inspection.
04	July 29, 1992 Illinois EPA manifest file search report.
05	October 31, 1991 Hannah Marine Expanded Site Inspection/Groundwater Pathway Assessment.
06	1988 Illinois Department of Transportation aerial photograph.
07	January 11, 1989 U.S. Coast Guard Letter of Adequacy for Oil Facility Operations Manual. March 27, 1991; April 5, 1991; April 16, 1991; March 25, 1992; U.S. Coast Guard Waterfront Facility Inspection Reports.
08	Illinois Geological Survey logs of Albrecht, Deyound, Kirk, Alexander Chemical, Northern Illinois Gas Co. no.'s 1 & 2, Corps of Engineers borings no.'s 1,2,3,4,5,6,7, and Dundee Cement.
09	August, 1992 listing of identified wells.
10	August 4, 1992 Illinois Department of Conservation impact analysis.

- 11 July 17, 1992 Illinois EPA Operating Permit for air emission sources. July 8, 1992 Powell Duffryn letter regarding air emissions.
- 12 August 1, 1991 Illinois EPA National Pollutant Discharge Elimination System Permit.
- 13 December 18, 1989 Powell Duffryn Spill, Prevention, Control, and Countermeasure Plan.
- 14 October 10, 1984 Preliminary Assessment of Alexander Chemical.
- 15 January 22, 1992 IEPA letter of penalty against Powell Duffryn with accompanying consent order. Also, previous memos (April 8, 1991, March 13, 1991, October 29, 1990, January 5, 1989, December 22, 1988, March 4, 1986, February 4, 1986) regarding water discharges,
- 16 April 30, 1976 North American Car Corporation letter of water discharge. March 29, 1976 letter and November 16, 1973 letter regarding same.
- 17 Telephone Numbers

POWELL DUFFRYN TERMINALS INC.

Post Office Box 327
Lemont, Illinois 60439 U.S.A.
Telephone 312-257-6222. TELEX 910-258-3283

September 21, 1983

**Reference
Number 1**



RECEIVED

SEP 22 1983

**ILL. E.P.A. - D.L.P.C.
STATE OF ILLINOIS**

Kenneth P. Bechely
Regional Manager
Division of Land Pollution Control
Illinois Environmental Protection Agency
1701 S. First Avenue, Suite 600
Maywood, IL 60153

Dear Mr. Bechely:

In reference to your letter of August 26, 1983, to Mr. Roman Gerus of North American Car Corporation, please be advised that this facility was purchased by Powell Duffryn Terminals, Inc., effective February 1, 1983.

Confirming our telephone conversation, nothing is supposed to be dumped or deposited in the land leveling operation on Powell Duffryn's property other than road construction rubble and clean earth. Mr. Ernie Witek of Super Cartage Company, Inc., Material Division, Route 6, Box 52 Lockport, IL 60441, is overseeing the operation and disposing of Super Cartage's road construction material on the property along with other contractor's material that Super Cartage does business with.

We have found a small empty tank and some old automobile parts that were evidently dumped in the swamp years ago. We now have that material along with the tree stumps that are being taken out, all in one spot. This material will be disposed of at an authorized land fill by Super Cartage.

I would like to respectfully suggest that your people make an inspection at their convenience with myself and Mr. Witek in attendance in order to explain and show them what we are trying to accomplish.

Thank you for your consideration on this.

Very truly yours,

Larry Brew
Larry Brew
Terminal Manager

RECEIVED

SEP 27 1983

**E.P.A. - D.L.P.C.
STATE OF ILLINOIS**

LB/jl

cc: Tony Tucker
Ron Sprague
Ernie Witek

TERMINALS:

CONSTABLE HOOK ROAD, BAYONNE, NEW JERSEY 07002
TELEPHONE 201-437-2600. TELEX 710-729-4497

HUTCHINSON ISLAND, POST OFFICE BOX 2503, SAVANNAH, GEORGIA 31402
TELEPHONE 912-236-1579. TELEX 810-784-5656

RECEIVED DUFFRYN
- 1 NO PERMIT DUFFRYN

POWELL DUFFRYN TERMINALS INC.

Post Office Box 327
Lemont, Illinois 60439 U.S.A.
Telephone 312-257-6222. TELEX 910-258-3283



V. D/K
RS
COMMENTS?

May 8, 1985

CERTIFIED MAIL

Mr. Theodore M. Denning, P.E.
Manager, Region II
Field Operations Section
ENVIRONMENTAL PROTECTION AGENCY
1701 First Avenue
Maywood IL 60153

RECEIVED
U.S. ENVIRONMENTAL PROTECTION AGENCY

MAY 10 1985

ENV. WASTE POLLUTION CONTROL
FIELD OPERATIONS SECTION - REG. 2

Dear Mr. Denning:

Reference: Compliance Inquiry Letter dated April 15, 1985.
POWELL DUFFRYN TERMINALS, INC.
(COOK COUNTY) NPDES #IL0005126

This letter is in response to your Compliance Inquiry Letter of April 15, 1985, and is a follow up to my letter of April 19, 1985, when I confirmed an extension of time to May 9, 1985, for reply.

As you are aware, Powell Duffryn Terminals, Inc. purchased the Lemont facility from North American Car Corporation in February of 1983. The only item purchased from North American Car Corporation was the bulk commodity storage facility at the Sag Junction Terminal. We did not purchase any of North American Car Corporation's tank car operations or chemical operations. We feel this background will have some bearing on answering the attachment to your April 15, 1985, letter.

Taking the attachment items in order, we respond as follows:

1. 1979-expired treatment plant operating permit has not been renewed.

Powell Duffryn Terminals is not aware of any treatment plant operating permit, nor is it aware of any need to have such permit. North American Car Corporation did have a treatment plant permit for various tank car washing facilities and we feel the 1979-expired treatment plant permit perhaps applied to one of these facilities.

TERMINALS:

P.O. BOX 283, 2 COMMERCE STREET, BAYONNE, NEW JERSEY 07002
TELEPHONE 201-437-2600. TELEX 710-729-4497

HUTCHINSON ISLAND, POST OFFICE BOX 2503, SAVANNAH, GEORGIA 31402
TELEPHONE 912-236-1579. TELEX 810-784-5656

2. Treatment plant is not under the supervision of any Agency-Certified Class K. Operator.

As indicated in number one above, Sag Junction Terminal facility does not have a treatment plant. Therefore, this item is moot.

3. DMRs from January, 1982 to December, 1983, have not been submitted to the Agency.

We are unable to locate file copies for DMRs for the period January, 1982 through June, 1982. We attempted to contact North American Car Corporation's Environmental Engineer to see if any aged retained copies are on hand. We attach copies of retained DMRs for the period July, 1982 through December, 1982. For the period January, 1983 through December, 1983, we again are unable to locate file copies for the referenced DMRs, but have located all copies of analytical lab data and will resubmit these DMRs by May 24 for review by your department.

4. Phenols, Cyanide, and various organic determination on effluent samples are not reported on DMRs.

A review of our DMRs shows that cyanide has routinely been reported on the DMRs. Also, we have tested for phenol and have found it to consistently be within permit limits, although this item was inadvertently not reported. This oversight will be corrected on the next DMRs submitted. With respect to the various organic determinations, we believe these items are referred in Special Condition 7 of our permit, where the referred monitoring was to be for a 12 month period. We believe this period ended with the March, 1983 sampling, and that the other conditions of Special Condition 7 have been met. We feel, therefore, we were correct in terminating continued analysis for these various organic compounds.

5. pH, Residual Chlorine, and FOG are determined on composite samples; and Total Suspended Solids (TSS) are determined on grab samples.

Our sampling personnel has changed over time, and has not had problems being aware of the various compound sampling or grab sampling requirements. Through a period of time, we found that the wrong type of sampling technology was used. While we feel this has no material bearing on the analytical results, we have instructed our sampling personnel to conform with the technical mandate on the permit. Correct sampling technology will be reported on the next DMRs.

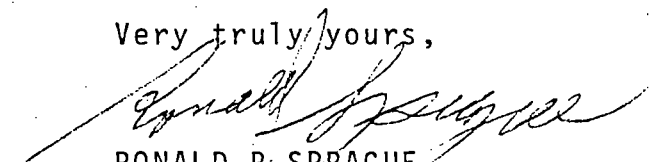
6. pH, TSS, and Residual Chlorine excursions from Permit limits have occurred on a routine basis.

Although there are apparent excursions with respect to pH, TSS, and residual chlorine, we feel the more recent DMRs have been within limitations on a more consistent basis, and the amount of apparent excursion lower. Being aware that the majority of our discharge is storm water runoff, and that the facility is unpaved, we feel that TSS excursion is due to siltation occurring near the sampling point of siltation into our effluent. Apparent excursions on pH and residual chlorine are due to the fact that a neighbor's outflow runs into our own flow equalization area. Also, this neighbor (Alexander Chemical) has recently changed their operation, and has improved the level of residual chlorine in the outflow. We have again brought the still excessive level of residual chlorine to their attention. We again note that residual chlorine levels on the DMRs has been lower and moving toward compliance. We feel that once Alexander Chemical's operation is lined out, we will be able to consistently meet the effluent limitation on our permit.

We hope the above answers the points in the inquiry letter, and thank you for allowing us to confer with Mr. Larry Brew before replying.

Should you have any further questions, feel free to contact either myself or Mr. Larry Brew, at your convenience.

Very truly yours,


RONALD R. SPRAGUE
Corporate Secretary

jaj

Attachment

RECEIVED
ELECTRONIC MAIL
JAN 1 1992
BY MAIL ROOM
GENERAL INVESTIGATIVE



217/782-6761

May 13, 1992

Powell Duffryn Terminals
Attn: James A. Durham
Main Street NE of Parker Road
Lemont, Illinois 60439

**Reference
Number 3**

Re: 0311625023 -- Cook County
Powell Duffryn Terminals
ILD980823835
Compliance File

Dear Mr. Durham:

The Agency is in receipt of your April 3, 1992 response(s) to our December 30, 1991 Pre-Enforcement Conference Letter. Your response(s) has been reviewed and the apparent violation(s) of Section(s) 722.111 is now considered resolved.

If you have any questions, please contact Michael Cimaglio at 708/531-5900.

Sincerely,

Brian White EWP

Brian S. White, Manager
Compliance Unit
Planning and Reporting Section
Division of Land Pollution Control

BSW:LS:sf/32Z,11

BCC: ~~DIVISION EWP~~, MAYWOOD, MICHEAL CIMAGLIA, LIZZ SCHWERTZKOPF

RCRA INSPECTION REPORT

JSEPA #: <u>1 L D 9 8 0 8 2 3 8 3 5</u>		IEPA #: <u>0 3 1 1 6 2 5 0 2 3</u>	
Facility Name: <u>Powell Duffry - Terminal</u>		Phone #: <u>708/257-6222</u>	
Street Address: <u>Main St. N/E of Parker</u>		County: <u>Cook</u>	
City: <u>Lemont</u>		State: <u>IL</u>	Zip: <u>60439</u>
Region: <u>maywood</u>	Inspection Date: <u>11 / 22 / 91</u>		From: <u>4:00pm</u> To: <u>11:00pm</u>
Weather: <u>40° Dark</u>			

TYPE OF FACILITY

Notified As: <u>6</u>		Regulated As: <u>6</u>	
LDF? <u>10</u> (Yes or No)	HPV? <u>20</u>	90-Day F/U Required?: YES _____ NO <u>X</u>	

TYPE OF INSPECTION

CEI: _____ Sampling: ☒ Citizen Complaint: _____ Closed: _____ Other: _____

CME/O&M: _____ Record Review: _____ Follow-Up to Inspection of: _____ Withdrawal: _____

NON-REGULATED STATUS

SQG: _____ Claimed Nonhandler: _____ Other (Specify in Narrative): _____

PART A

Notification Date: 6 / 29 / 93, from (initial) or (subsequent) Notification.

Initial Part A Date: / + / Amended: / + /

Part A Withdrawal requested: / + / Approved by (US)(IL) EPA: / + /

PART B PERMIT APPLICATIONPart B Permit Submitted: Y or ☒ N ____/____/____ Final Permit Issued: ____/____/____

ENFORCEMENT

Has the firm been referred to -- USEPA: Y or ☒ N ____/____/____

Illinois Attorney General: Y or ☒ N ____/____/____ County State's Attorney: Y or ☒ N ____/____/____

ORDERS ISSUED

CACO: 11/ CAFO: 11/ Consent Decree: 11/
Federal Court Order: 11/ State Court Order: 11/ IPCB Order: 11/

TSD FACILITY ACTIVITY SUMMARY[illegible]

OPERATOR

PERSON(S) INTERVIEWED

PHOL

INSPECTION PARTICIPANT(S)**PHONE #**

PREPARED BY

PHONE #

SUMMARY OF APPARENT VIOLATIONS

[illegible]

0311625023-- COOK
POWELL DUFFRYN TERMINALS/ CJR
ILD980823835
11/22/91

NARRATIVE

On 11/12/91 900,000 gals. of waste were removed from the above site via three barges, Barges EMC310, EMC321 & EMC 332 from Egan Marine Co. of Lemont, IL. This waste was being stored in tanks 204 and 210 which are leased by CJR Processing of Des Plaines IL. Tank 210 had been sampled by the IEPA on 8/8/91 with results indicating the presence of hazardous waste being received in the IEPA Maywood office on 11/1/91. On 11/13/91 Powell Duffryn was contacted and informed that they would be cited with a violation for failure to make a proper hazardous waste determination. Powell Duffryn was also informed that representative sampling of the tanks and TCLP testing was required to make the proper determination.

As the barges were loaded and released within days of this notification, there was a concern that hazardous waste was being transported without proper manifests or permits. The barges were transported to Tanko in Burns Harbor, IN. The terminal refused to allow off-loading of the barges due to the discrepancy between the bill of lading and the IEPA test results of the tank which had stored the waste. The barges were then returned to IL. They left IN on 11/15/91, were transported to Egan Marine's slip in Lake Calumet. On 11/20/91 the barges were again moved, this time to a dock off of Illinois Scrap Metal in Chicago. Upon agreement between the IEPA and CJR the contents of the barges were sampled on 11/22/91. CJR and Effluent Technology Inc. (ETI), the transporter who delivered the waste to Powell Duffryn, contracted Caleb Brett to sample the waste and Weston Gulf Coast Laboratory to analyze the samples. Michael Cimaglio IEPA/FOS provided oversight and transported the samples to the lab. Rich Seneca of Caleb Brett, and Louis Filosa of ETI took the samples.

The conditions for sampling were adverse. Sampling was done on the three barges after dark, from 6:20pm to 8:15pm. The samples all appeared to consist of a dark grey oily liquid, some with a darker floating layer. One gallon sample was composited from the three compartments on each barge, and one 40ml VOC sample was taken at each compartment. In addition, one grab sample was taken off the top of the center compartment of the middle barge, EMC310. This sample consisted of a higher level of the floating matter.

All of the samples collected consisted of a dark grey oily liquid with varying amounts of floating oils and solids. The middle compartment of EMC310 apparently had a heavy layer of solids, or semi-solids on the bottom of the compartment. This material may not be represented in the samples from the barge. The samples were removed from the barges in the following order with corresponding sample sealing times:

0311625023-- COOK
POWELL DUFFRYN TERMINALS/ CJR
ILD980823835
11/22/91

Page 2

X201	EMC321	6:52pm
X202	EMC310	7:35pm
X203	EMC332	8:15pm
X204	EMC310	7:25pm

The samples that were taken used a method referred to as "running samples." A bottle was lowered to the bottom of the tank in a stoppered cage. The stopper was then removed and the bottle was pulled to the surface of the barge. Theoretically if the bottle was pulled at the proper rate, a representative sample would be received.

On 11/26/91 Gulf Coast Labs. telephoned the IEPA Maywood office with the results of the GC Mass Spec. analysis. None of the TCLP wastes were detected at regulatory levels according to Chuck Maw of Gulf Coast. There were, however, some Chlorinated compounds which had detection levels higher than regulatory levels due to the test methods necessary for oil and water mixtures.

RCRA INSPECTION REPORT

TYPE OF FACILITY**TYPE OF INSPECTION**

NON-REGULATED STATUS

PART A

Approved by (US)(IL) EPA: / /

ENFORCEMENT

ORDERS ISSUED

TSD FACILITY ACTIVITY SUMMARY

RECEIVED

~~5 DEC 1991~~

~~IEPA/DLPC~~

MEMO

DATE: 11/13/91

TO: DIVISION FILE

FROM: MIKE CIMAGLIO, FOS

RE: 0311625023-- COOK
POWELL DUFFRYN TERMINALS
ILD980823835
COMPLIANCE

=====

On August 8, 1991 James Haennicke and I conducted a complaint investigation at the above site. The complaint alleged that hazardous waste was being stored at the site by CJR Processing. No violations were cited at the time, as current analyses did not indicate that any of the waste on site was hazardous. Samples were taken from one of the tanks on site by myself and J. Haennicke. These were sent to the IEPA Lab. in Springfield for analysis. The results of this test were received on 11/1/91 at the IEPA Maywood office.

The test results indicated a high level of Carbon Tetrachloride (400 ppm) in the sample. This would indicate that the material in the tank was a D019 Hazardous waste.

Since Powell Duffryn never tested the materials for Organic Constituents, They are being cited with not making a proper waste determination. Jim Durham of Powell Duffryn was contacted with the results of our testing. He was informed that Powell Duffryn was required to take representative samples from both of the tanks containing the waste stored by CJR and a proper waste determination had to be made.

On or about 11/11/91 CJR Processing arranged for the removal of 900,000 gals. of the waste from the two tanks at Powell Duffryn. Approximately 75,000 and 125,000 gals. remain in tanks 204 and 210 respectively.

APPARENT VIOLATIONS

722.111 Failure for the generator to make a hazardous waste determination.

CC: Maywood

PRG: LPSWM501
LES: LPSWP501

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
MANIFEST FILE SEARCH

PAGE: 1
TIME: 19:28:08
DATE: 07/29/92

SELECTION CRITERIA: GENERATOR:0311625023 HAULER: SITE: WASTE STREAM: BEGIN DATE:01/01/88 END DATE:07/29/92
SELECTION CODE:0 ERROR CODES:

GEN NO. GENERATOR NAME HAUL #1/NHWA HAULER NAME SITE CODE SITE NAME

0311625023 POWELL DUFFRYN TERMINALS INC 1464 BURREN TRANSFER CO 0310690006 SAFETY KLEEN ENVIROSYSTEMS CO

HAUL #2 OR MGCT 0000

MANIFEST NO 1163130-1A WASTE STREAM NO 000162 WASTE AMT 1,705 GALLONS SHIP 11/10/88 RECVD 11/11/88 GEN COPY YES HW# OR YRQTR F002

SITE MICRO 98340000157 GENERIC NAME: ENTRY 88/343 HIST 89/313 ERRORS

Halogenated Solvent

0311625023 POWELL DUFFRYN TERMINALS INC 2434 BEST ENVIRONMENTAL INC 9211570001 LWD INC

HAUL #2 OR MGCT 0000

MANIFEST NO 1771307-1A WASTE STREAM NO 000000 WASTE AMT 550 GALLONS SHIP 01/09/89 RECVD 01/16/89 GEN COPY NO HW# OR YRQTR

SITE MICRO 89030000841 GENERIC NAME: UNKNOWN (OUT OF STATE SITES) ENTRY 89/037 HIST 90/012 ERRORS

0311625023 POWELL DUFFRYN TERMINALS INC 1301 CHEMICAL SERVICES CORP 0638140002 ENVIRONTECH INC

HAUL #2 OR MGCT 0000

MANIFEST NO 3418802-1A WASTE STREAM NO 070181 WASTE AMT 12 CU. YDS. SHIP 09/20/90 RECVD 09/20/90 GEN COPY YES HW# OR YRQTR

SITE MICRO 90283000872 GENERIC NAME: ENTRY 90/339 HIST 00/000 ERRORS

0311625023 POWELL DUFFRYN TERMINALS INC 1301 CHEMICAL SERVICES CORP 0638140002 ENVIRONTECH INC

HAUL #2 OR MGCT 0000

MANIFEST NO 4361311-1A WASTE STREAM NO 070181 WASTE AMT 12 CU. YDS. SHIP 09/20/90 RECVD 09/20/90 GEN COPY YES HW# OR YRQTR

SITE MICRO 90283000870 GENERIC NAME: ENTRY 90/339 HIST 00/000 ERRORS

0311625023 POWELL DUFFRYN TERMINALS INC 1301 CHEMICAL SERVICES CORP 0638140002 ENVIRONTECH INC

HAUL #2 OR MGCT 0000

MANIFEST NO 4361395-1A WASTE STREAM NO 070181 WASTE AMT 18 CU. YDS. SHIP 09/20/90 RECVD 09/21/90 GEN COPY YES HW# OR YRQTR

SITE MICRO 90283001595 GENERIC NAME: ENTRY 90/339 HIST 00/000 ERRORS

0311625023 POWELL DUFFRYN TERMINALS INC 1301 CHEMICAL SERVICES CORP 0638140002 ENVIRONTECH INC

HAUL #2 OR MGCT 0000

MANIFEST NO 4361397-1A WASTE STREAM NO 070181 WASTE AMT 12 CU. YDS. SHIP 09/20/90 RECVD 09/21/90 GEN COPY YES HW# OR YRQTR

SITE MICRO 90283001594 GENERIC NAME: ENTRY 90/339 HIST 00/000 ERRORS

Reference
Number 4

PRDG: LPSHM501
LIST: LPSHP501

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
MANIFEST FILE SEARCH

PAGE: 2
TIME: 19:28:08
DATE: 07/29/92

GEN NO.	GENERATOR NAME	HAUL#1/HW#	HAULER NAME	SITE CODE	SITE NAME
0311525023	POWELL DUFFRYN TERMINALS INC	1301	CHEMICAL SERVICES CORP	0638140002	ENVIRONTECH INC
HAUL #2 OR MGCT 0000					
MANIFEST NO 4361195-1A WASTE STREAM NO 070181 WASTE AMT 14 CU. YDS. SHIP 09/21/90 RECVD 09/24/90 GEN COPY YES HW# OR YRQTR					
SITE MICRO 90283001585 GENERIC NAME: ENTRY 90/339 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1301	CHEMICAL SERVICES CORP	0638140002	ENVIRONTECH INC
HAUL #2 OR MGCT 0000					
MANIFEST NO 4361396-1A WASTE STREAM NO 070181 WASTE AMT 18 CU. YDS. SHIP 09/21/90 RECVD 09/21/90 GEN COPY YES HW# OR YRQTR					
SITE MICRO 90283001597 GENERIC NAME: ENTRY 90/339 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1301	CHEMICAL SERVICES CORP	0638140002	ENVIRONTECH INC
HAUL #2 OR MGCT 0000					
MANIFEST NO 4361194-1A WASTE STREAM NO 070181 WASTE AMT 18 CU. YDS. SHIP 09/24/90 RECVD 09/24/90 GEN COPY YES HW# OR YRQTR					
SITE MICRO 90283001536 GENERIC NAME: ENTRY 90/339 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 4349694-1A WASTE STREAM NO 000108 WASTE AMT 833 GALLONS SHIP 10/26/90 RECVD 10/26/90 GEN COPY YES HW# OR YRQTR D001					
SITE MICRO 00314001759 GENERIC NAME: ENTRY 91/028 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	18		0316000051	CLEAN HARBORS OF CHICAGO INC
HAUL #2 OR MGCT 07					
MANIFEST NO 9212487-8A WASTE STREAM NO 591409 WASTE AMT 2,258 GALLONS SHIP 01/01/91 RECVD 12/31/91 GEN COPY NO HW# OR YRQTR 92 1					
SITE MICRO 92001002487 GENERIC NAME: DYES ENTRY 92/108 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	15		0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 11					
MANIFEST NO 9215583-9E WASTE STREAM NO 000107 WASTE AMT 700 GALLONS SHIP 01/01/91 RECVD 12/31/91 GEN COPY NO HW# OR YRQTR 92 1					
SITE MICRO 92001005583 GENERIC NAME: ENTRY 92/105 HIST 00/000 ERRORS					

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GEN NO.	GENERATOR NAME	HAUL #1/NH#	HAULER NAME	SITE CODE	SITE NAME
0311625023	POWELL DUFFRYN TERMINALS INC	03		0311620007	HERITAGE ENVIRONMENTAL SERVICE
	HAUL #2 OR MGCT	11			
MANIFEST NO 9215592-9G WASTE STREAM NO 000208 WASTE AMT 3,800 GALLONS SHIP 01/01/91 RECVD 12/31/91 GEN COPY NO HW# OR YRQTR 92 1					
SITE MICRO 92001005592 GENERIC NAME: ENTRY 92/105 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	12		0311620007	HERITAGE ENVIRONMENTAL SERVICE
	HAUL #2 OR MGCT	11			
MANIFEST NO 9215596-9A WASTE STREAM NO 000105 WASTE AMT 5,195 GALLONS SHIP 01/01/91 RECVD 12/31/91 GEN COPY NO HW# OR YRQTR 92 1					
SITE MICRO 92001005596 GENERIC NAME: ENTRY 92/105 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	03		0316000034	LAND & LAKES #3
	HAUL #2 OR MGCT	09			
MANIFEST NO 9216211-8A WASTE STREAM NO 911143 WASTE AMT 21 CU. YDS. SHIP 01/01/91 RECVD 12/31/91 GEN COPY NO HW# OR YRQTR 92 1					
SITE MICRO 92001006211 GENERIC NAME: SAND, STEEL, STONE, DEBRIS CONTAM ENTRY 92/107 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	18		0310030002	CENTURY RESOURCES INC
	HAUL #2 OR MGCT	03			
MANIFEST NO 9216897-3A WASTE STREAM NO 000177 WASTE AMT 1,500 GALLONS SHIP 01/01/91 RECVD 12/31/91 GEN COPY NO HW# OR YRQTR 92 1					
SITE MICRO 92001006897 GENERIC NAME: ENTRY 92/114 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	13		9181410004	INDUSTRIAL FUELS & RESOURCES
	HAUL #2 OR MGCT	06			
MANIFEST NO 9217566-8A WASTE STREAM NO 000000 WASTE AMT 2,083 GALLONS SHIP 01/01/91 RECVD 12/31/91 GEN COPY NO HW# OR YRQTR 92 1					
SITE MICRO 92001007566 GENERIC NAME: UNKNOWN (OUT OF STATE SITES) ENTRY 92/127 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	15		9181275359	WHEELER LANDFILL
	HAUL #2 OR MGCT	09			
MANIFEST NO 9217567-3A WASTE STREAM NO 000000 WASTE AMT 265 CU. YDS. SHIP 01/01/91 RECVD 12/31/91 GEN COPY NO HW# OR YRQTR 92 1					
SITE MICRO 92001007567 GENERIC NAME: UNKNOWN (OUT OF STATE SITES) ENTRY 92/127 HIST 00/000 ERRORS					

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GEN NO.	GENERATOR NAME	HAUL#1/NHWA	HAULER NAME	SITE CODE	SITE NAME
0311625023	POWELL DUFFRYN TERMINALS INC	15		9211570001	LWD INC
	HAUL #2 OR MGCT	04			
MANIFEST NO 9217568-3A WASTE STREAM NO 000000 WASTE AMT 8 CU. YDS. SHIP 01/01/91 RECVD 12/31/91 GEN COPY NO HW# OR YRQTR 92 1					
SITE MICRO 92001007568 GENERIC NAME: UNKNOWN (OUT OF STATE SITES) ENTRY 92/127 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	19		9390930001	ROSS INCINERATION
	HAUL #2 OR MGCT	04			
MANIFEST NO 9217569-8A WASTE STREAM NO 000000 WASTE AMT 110 GALLONS SHIP 01/01/91 RECVD 12/31/91 GEN COPY NO HW# OR YRQTR 92 1					
SITE MICRO 92001007569 GENERIC NAME: UNKNOWN (OUT OF STATE SITES) ENTRY 92/127 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1301	CHEMICAL SERVICES CORP	9211570001	LWD INC
	HAUL #2 OR MGCT	0000			
MANIFEST NO 4361269-1A WASTE STREAM NO 000000 WASTE AMT 8 CU. YDS. SHIP 01/29/91 RECVD 01/30/91 GEN COPY NO HW# OR YRQTR					
SITE MICRO 91050000596 GENERIC NAME: UNKNOWN (OUT OF STATE SITES) ENTRY 91/064 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	0731	ROSS TRANSPORTATION SERVICES	9390930001	ROSS INCINERATION
	HAUL #2 OR MGCT	0000			
MANIFEST NO 3032921-1A WASTE STREAM NO 000000 WASTE AMT 1,530 GALLONS SHIP 09/17/91 RECVD 09/18/91 GEN COPY YES HW# OR YRQTR 0001					
SITE MICRO 91273000727 GENERIC NAME: UNKNOWN (OUT OF STATE SITES) ENTRY 92/009 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
	HAUL #2 OR MGCT	0000			
MANIFEST NO 3605282-1A WASTE STREAM NO 000108 WASTE AMT 85 GALLONS SHIP 11/15/91 RECVD 11/15/91 GEN COPY YES HW# OR YRQTR 0001					
SITE MICRO 91336000415 GENERIC NAME: ENTRY 92/025 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
	HAUL #2 OR MGCT	0000			
MANIFEST NO 3605282-1B WASTE STREAM NO 000268 WASTE AMT 780 GALLONS SHIP 11/15/91 RECVD 11/15/91 GEN COPY YES HW# OR YRQTR 0002					
SITE MICRO 91336000415 GENERIC NAME: ENTRY 92/025 HIST 00/000 ERRORS					

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0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3605359-1A WASTE STREAM NO 000268 WASTE AMT 110 GALLONS SHIP 12/13/91 RECVD 12/13/91 GEN COPY YES HW# OR YRQTR D002					
SITE MICRO 91364000992 GENERIC NAME: ENTRY 92/078 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3605360-1A WASTE STREAM NO 000108 WASTE AMT 495 GALLONS SHIP 12/13/91 RECVD 12/13/91 GEN COPY YES HW# OR YRQTR D001					
SITE MICRO 91364000991 GENERIC NAME: ENTRY 92/078 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	0731	ROSS TRANSPORTATION SERVICES	9390930001	ROSS INCINERATION
HAUL #2 OR MGCT 0000					
MANIFEST NO 3032931-1A WASTE STREAM NO 000000 WASTE AMT 1,100 GALLONS SHIP 12/30/91 RECVD 01/06/92 GEN COPY YES HW# OR YRQTR 0228					
SITE MICRO 92021000597 GENERIC NAME: UNKNOWN (OUT OF STATE SITES) ENTRY 92/127 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3753201-1A WASTE STREAM NO 090010 WASTE AMT 440 GALLONS SHIP 01/28/92 RECVD 01/28/92 GEN COPY YES HW# OR YRQTR 0007					
SITE MICRO 92041000520 GENERIC NAME: ENTRY 92/120 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3605427-1A WASTE STREAM NO 000268 WASTE AMT 255 GALLONS SHIP 02/10/92 RECVD 02/10/92 GEN COPY YES HW# OR YRQTR D001					
SITE MICRO 92063000139 GENERIC NAME: ENTRY 92/125 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699833-1A WASTE STREAM NO 000108 WASTE AMT 5,124 GALLONS SHIP 02/15/92 RECVD 02/15/92 GEN COPY YES HW# OR YRQTR D040					
SITE MICRO 92063001648 GENERIC NAME: ENTRY 92/129 HIST 00/000 ERRORS					

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GEN NO.	GENERATOR NAME	HAUL #1/HHWA	HAULER NAME	SITE CODE	SITE NAME
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699839-1A WASTE STREAM NO 000108 WASTE AMT 5,500 GALLONS SHIP 02/15/92 RECVD 02/15/92 GEN COPY YES HW# OR YRQTR D040					
SITE MICRO 92063001647 GENERIC NAME: ENTRY 92/129 HIST 00/000 ERRORS trichloroethylene					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699840-1A WASTE STREAM NO 000108 WASTE AMT 4,800 GALLONS SHIP 02/15/92 RECVD 02/15/92 GEN COPY YES HW# OR YRQTR D040					
SITE MICRO 92063001648 GENERIC NAME: ENTRY 92/129 HIST 00/000 ERRORS trichloroethylene					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699841-1A WASTE STREAM NO 000108 WASTE AMT 6,000 GALLONS SHIP 02/15/92 RECVD 02/15/92 GEN COPY YES HW# OR YRQTR D040					
SITE MICRO 92063001642 GENERIC NAME: ENTRY 92/129 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699842-1A WASTE STREAM NO 000108 WASTE AMT 4,800 GALLONS SHIP 02/15/92 RECVD 02/15/92 GEN COPY YES HW# OR YRQTR D040					
SITE MICRO 92063001645 GENERIC NAME: ENTRY 92/129 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699843-1A WASTE STREAM NO 000108 WASTE AMT 4,000 GALLONS SHIP 02/15/92 RECVD 02/15/92 GEN COPY YES HW# OR YRQTR D040					
SITE MICRO 92063001644 GENERIC NAME: ENTRY 92/129 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699844-1A WASTE STREAM NO 000108 WASTE AMT 5,250 GALLONS SHIP 02/15/92 RECVD 02/15/92 GEN COPY YES HW# OR YRQTR D040					
SITE MICRO 92063001653 GENERIC NAME: ENTRY 92/129 HIST 00/000 ERRORS					

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GEN NO.	GENERATOR NAME	HAUL #1/HHW	HAULER NAME	SITE CODE	SITE NAME
0311625023	POWELL DUFFRYN TERMINALS INC.	1554	HERITAGE TRANSPORT INC.	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699845-1A WASTE STREAM NO 000109 WASTE AMT 4,400 GALLONS SHIP 02/15/92 RECVD 02/15/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063001643 GENERIC NAME: ENTRY 92/129 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC.	1554	HERITAGE TRANSPORT INC.	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699846-1A WASTE STREAM NO 000109 WASTE AMT 4,500 GALLONS SHIP 02/15/92 RECVD 02/15/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063001651 GENERIC NAME: ENTRY 92/129 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC.	1554	HERITAGE TRANSPORT INC.	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699847-1A WASTE STREAM NO 000108 WASTE AMT 2,500 GALLONS SHIP 02/17/92 RECVD 02/17/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063001652 GENERIC NAME: ENTRY 92/129 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC.	1554	HERITAGE TRANSPORT INC.	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699848-1A WASTE STREAM NO 000108 WASTE AMT 5,000 GALLONS SHIP 02/17/92 RECVD 02/17/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063001650 GENERIC NAME: ENTRY 92/128 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC.	1554	HERITAGE TRANSPORT INC.	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699848-1A WASTE STREAM NO 000108 WASTE AMT 5,566 GALLONS SHIP 02/17/92 RECVD 02/17/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063001655 GENERIC NAME: ENTRY 92/128 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC.	1554	HERITAGE TRANSPORT INC.	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3753475-1A WASTE STREAM NO 000108 WASTE AMT 1,830 GALLONS SHIP 02/17/92 RECVD 02/17/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063001654 GENERIC NAME: ENTRY 92/132 HIST 00/000 ERRORS					

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0311625023	POWELL DUFFRYN TERMINALS INC	1554 HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000				
MANIFEST NO 3699849-1A WASTE STREAM NO 000108 WASTE AMT 5,200 GALLONS SHIP 02/18/92 RECVD 02/18/92 GEN COPY YES HW# OR YRQTR D040				
SITE MICRO 92063001649 GENERIC NAME: ENTRY 92/128 HIST 00/000 ERRORS				
0311625023	POWELL DUFFRYN TERMINALS INC	1554 HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000				
MANIFEST NO 3699850-1A WASTE STREAM NO 000108 WASTE AMT 5,500 GALLONS SHIP 02/19/92 RECVD 02/19/92 GEN COPY YES HW# OR YRQTR D040				
SITE MICRO 92063001641 GENERIC NAME: ENTRY 92/128 HIST 00/000 ERRORS				
0311625023	POWELL DUFFRYN TERMINALS INC	1554 HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000				
MANIFEST NO 3699851-1A WASTE STREAM NO 000108 WASTE AMT 4,860 GALLONS SHIP 02/19/92 RECVD 02/19/92 GEN COPY YES HW# OR YRQTR D040				
SITE MICRO 92063001656 GENERIC NAME: ENTRY 92/128 HIST 00/000 ERRORS				
0311625023	POWELL DUFFRYN TERMINALS INC	1554 HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000				
MANIFEST NO 3699861-1A WASTE STREAM NO 000108 WASTE AMT 6,000 GALLONS SHIP 02/20/92 RECVD 02/20/92 GEN COPY YES HW# OR YRQTR D040				
SITE MICRO 92063002132 GENERIC NAME: ENTRY 92/161 HIST 00/000 ERRORS				
0311625023	POWELL DUFFRYN TERMINALS INC	1554 HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000				
MANIFEST NO 3699862-1A WASTE STREAM NO 000108 WASTE AMT 5,321 GALLONS SHIP 02/20/92 RECVD 02/20/92 GEN COPY YES HW# OR YRQTR D040				
SITE MICRO 92063002131 GENERIC NAME: ENTRY 92/161 HIST 00/000 ERRORS				
0311625023	POWELL DUFFRYN TERMINALS INC	1554 HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000				
MANIFEST NO 3699863-1A WASTE STREAM NO 000108 WASTE AMT 5,250 GALLONS SHIP 02/20/92 RECVD 02/20/92 GEN COPY YES HW# OR YRQTR D040				
SITE MICRO 92063002130 GENERIC NAME: ENTRY 92/161 HIST 00/000 ERRORS				

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0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699864-1A WASTE STREAM NO 000108 WASTE AMT 5,000 GALLONS SHIP 02/20/92 RECVD 02/20/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063002129 GENERIC NAME: ENTRY 92/161 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699870-1A WASTE STREAM NO 000108 WASTE AMT 4,130 GALLONS SHIP 02/20/92 RECVD 02/20/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063002128 GENERIC NAME: ENTRY 92/161 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699871-1A WASTE STREAM NO 000108 WASTE AMT 5,400 GALLONS SHIP 02/21/92 RECVD 02/21/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063002127 GENERIC NAME: ENTRY 92/161 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699872-1A WASTE STREAM NO 000108 WASTE AMT 4,700 GALLONS SHIP 02/21/92 RECVD 02/21/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063002126 GENERIC NAME: ENTRY 92/161 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699873-1A WASTE STREAM NO 000108 WASTE AMT 5,500 GALLONS SHIP 02/21/92 RECVD 02/21/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063002125 GENERIC NAME: ENTRY 92/161 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3699875-1A WASTE STREAM NO 000011 WASTE AMT 275 GALLONS SHIP 02/21/92 RECVD 02/21/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063002135 GENERIC NAME: ENTRY 92/161 HIST 00/000 ERRORS					

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0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3599880-1A WASTE STREAM NO 000108 WASTE AMT 5,700 GALLONS SHIP 02/21/92 RECVD 02/21/92 GEN COPY YES HW# OR YRQTR 0040					
SITE MICRO 92063002133 GENERIC NAME: ENTRY 92/161 HIST 00/000 ERRORS <i>trichloroethylene</i>					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3753514-1A WASTE STREAM NO 090010 WASTE AMT 660 GALLONS SHIP 02/26/92 RECVD 02/26/92 GEN COPY YES HW# OR YRQTR 0007					
SITE MICRO 92069001204 GENERIC NAME: ENTRY 92/163 HIST 00/000 ERRORS <i>chromium</i>					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3753517-1A WASTE STREAM NO 000268 WASTE AMT 605 GALLONS SHIP 03/04/92 RECVD 03/04/92 GEN COPY YES HW# OR YRQTR 0002					
SITE MICRO 92076000759 GENERIC NAME: ENTRY 92/175 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3605453-1A WASTE STREAM NO 090010 WASTE AMT 1,050 GALLONS SHIP 04/28/92 RECVD 04/28/92 GEN COPY NO HW# OR YRQTR F002					
SITE MICRO 92132000146 GENERIC NAME: ENTRY 92/134 HIST 00/000 ERRORS <i>halogenated solvents</i>					
0311625023	POWELL DUFFRYN TERMINALS INC	1554	HERITAGE TRANSPORT INC	0311620007	HERITAGE ENVIRONMENTAL SERVICE
HAUL #2 OR MGCT 0000					
MANIFEST NO 3605454-1A WASTE STREAM NO 000108 WASTE AMT 440 GALLONS SHIP 04/28/92 RECVD 04/28/92 GEN COPY NO HW# OR YRQTR 0001					
SITE MICRO 92132000145 GENERIC NAME: ENTRY 92/134 HIST 00/000 ERRORS					
0311625023	POWELL DUFFRYN TERMINALS INC	1478	CLEAN HARBORS INC	0316000051	CLEAN HARBORS OF CHICAGO INC
HAUL #2 OR MGCT 0000					
MANIFEST NO 3700006-1A WASTE STREAM NO 000284 WASTE AMT 220 GALLONS SHIP 04/28/92 RECVD 04/30/92 GEN COPY NO HW# OR YRQTR 0002					
SITE MICRO 92167001127 GENERIC NAME: ENTRY 92/171 HIST 00/000 ERRORS					

PRG: LPSW1501
LIST: LPSW1501

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
MANIFEST FILE SEARCH

PAGE: 11
TIME: 19:28:08
DATE: 07/29/92

GEN NO.	GENERATOR NAME	HAUL #1/HHWA	H A U L E R NAME	SITE CODE	S I T E N A M E
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HAUL #2 OR MGCT 0000					
MANIFEST NO 3753767-1A WASTE STREAM NO 000268 WASTE AMT 110 GALLONS SHIP 05/01/92 RECVD 05/01/92 GEN COPY NO HH# OR YRQTR 0002					
SITE MICRO 92132000663 GENERIC NAME: ENTRY 92/134 HIST 00/000 ERRORS					

MANIFEST RECORDS	61	TOTAL GALLONS	235.732
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Reference Number 5

0438020004 - D. Page Co.
Hannah Maine - Superfund/HRS
EXPANDED SITE INSPECTION/
GROUNDWATER PATHWAY ASSESSMENT
FOR
HANNAH MARINE CORP
LEMONT, ILLINOIS
U.S. EPA ID: ILDO69-96248
SS ID: NONE
TDD: F05-8810-002
PAN: FILO277Z



**HAZARDOUS
SITE
EVALUATION
DIVISION**

Field Investigation Team Zone II



**CONTRACT NO.
68-01-7347**

RECEIVED

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International Specialists in the Environment

Hannah Marine responded in September 1987 by providing the information that IEPA had requested (Rosemarin 1987). Upon reviewing the information provided by Hannah Marine, IEPA then determined that the previous violations had been resolved (Chappel 1987).

In 1990, a construction crew was contracted by MWRD to excavate a pit near the site for a water diversion system (Kelley 1991). The pit was located approximately 75 feet north of the CSC and west of the junction of Archer Avenue and State Route 83, which is located immediately to the southeast of the site. The construction crew noticed a heavy oil, presumed to be #5 or #6, coming to the surface from the pit. The construction crew performed a leachate test and determined that the oil was nonhazardous. They removed the oil and proceeded with the excavation. Frank Kelley, an engineer from the Industrial Waste Division of MWRD, also collected a sample of the waste (Sustich 1991b). The results of the analysis of the sample collected by Kelley are not known. Kelley alleges that the oil came from the HM site (Kelley 1991).

No other known regulatory, enforcement, or remedial action is known to have occurred at the HM site.

2.3 REGIONAL GEOGRAPHY

Physiography. The area around the HM site comprises the Wheaton Morainal Country of the Great Lakes Section of the Central Lowland Province. The HM site lies near the western edge of the Wheaton Morainal Country in a flat, low-lying valley created by an outlet from glacial Lake Chicago. This valley is now part of the channel of the present-day Des Plaines River (Willman 1971). The 97-acre site is located on a point of land at the confluence of the SSC and the CSC. The site lies at an elevation of approximately 600 feet above mean sea level (MSL) and, as a result of extensive engineering of the surrounding waterways, is generally flat (E & E 1986).

Hills that rise above the valley represent the effects of continental glaciation and were formed as kames, kame terraces, eskers, and end moraines. In some areas near the site, portions of Silurian reefs protrude through this glacial cover. The present-day topography of the surrounding hills has resulted from dissection of the glacial features by existing streams and rivers (Willman 1971).

The HM site lies near the major drainage divide that separates waters that flow to the Gulf of St. Lawrence through the Great Lakes and those that flow to the Gulf of Mexico through the Illinois and Mississippi rivers (Willman 1971). The Des Plaines River, which flows southwest, drains the southeastern portion of DuPage County. Much of Cook County was formerly drained toward Lake Michigan through the Chicago and Calumet rivers. Construction of locks along these rivers, however, has reversed their flows, and they now flow into the Des Plaines River through the SSC and the CSC. The Des Plaines River, therefore, is now the major drainage for DuPage and Cook counties. Some areas near the site, such as sloughs, bogs, and kettles, are essentially undrained (U.S. Department of Agriculture [USDA] 1979).

Principal soils in the site area are mapped as Romeo silt loam, which consists of an approximately 5-inch layer of loam overlying carbonate bedrock, and Orthents stony. Orthents stony consists of stones and boulders that have been dredged from the underlying carbonate regolith or blasted from the bedrock during the construction of nearby waterways.

Climate. The climate in the area of the site is temperate cold and dry in the winter and hot and humid in the summer. The mean temperature is 21.1° F in January and 72.2° F in July. The mean annual precipitation, which is well-distributed throughout the year, is 33.42 inches. The average seasonal snowfall is 38.3 inches. The lowest monthly precipitation, 1.24 inches, occurs in February, and the highest, 4.04 inches, occurs in September.

These data, which reflect conditions in Chicago, were prepared by the National Climatic Center in Asheville, North Carolina, for the Soil Conservation Service (USDA 1979). Prevailing winds in the area are westerly at 11 miles per hour in January and southwesterly at 8 miles per hour in July (U.S. Department of Commerce 1979).

Demographics. The HM site is located in an unincorporated area of the city of Lemont, a primarily residential rural community with a population of approximately 4,600 persons. Most of the city's residents live in old residential neighborhoods in the city's center, which lies approximately 3 miles southwest of the HM site (Guizzon 1991). In 1980,

there were 2,256 persons per square mile in the city of Lemont (U.S. Bureau of the Census 1982).

Land Use. The HM site lies in a primarily commercial/industrial and recreational area of unincorporated Lemont. Forested land surrounds the residential areas of Lemont and Downers Grove, and is the most dominant landscape in the site area. Much of the forested land is maintained as forest preserves and parks (United States Geological Survey [USGS] 1962, 1963, 1963a, 1963b). Agriculture is limited to only small areas around the site.

The Argonne National Laboratory reservation is a 1,700-acre multidisciplinary research facility that lies approximately 1/2 mile northwest of the HM site. Approximately 50 laboratories and administrative buildings occupy small portions of the reservation. The remainder of the property is forested land (Foster 1991).

In the immediate site area in the Des Plaines valley, FIT observed several salvage yards and ongoing commercial construction projects.

Waterway Use. The SSC and the CSC are major waterways for barge traffic between inland industries and Chicago area ports along Lake Michigan. All types of manufactured products are transported on the barges, but raw materials, such as chemicals, sand and gravel, coal, petroleum products, and grain, are the largest components of the waterway traffic (Wadleigh 1991).

2.4 REGIONAL GEOLOGY AND HYDROGEOLOGY

The regional geology of the HM site is characterized by mildly deformed Paleozoic sedimentary rocks that are overlain by unconsolidated Quaternary glaciogenic deposits.

The unconsolidated sediments are almost entirely Wisconsinan in age and represent a variety of glacial environments. Till deposits, primarily moraines, are unsorted and range in texture from dense clay-rich material to gravel- and sand-rich material (Zeizel et al. 1962; Willman 1971). In DuPage County, these deposits are expressed as a series of end moraines, trending north and south, which record short and rapid fluctuations of the margin of the Michigan Lobe. These moraines are generally assigned to the Valparaiso Moraine, which is a morphostratigraphic subdivision of the Vedron Formation (Willman 1971).

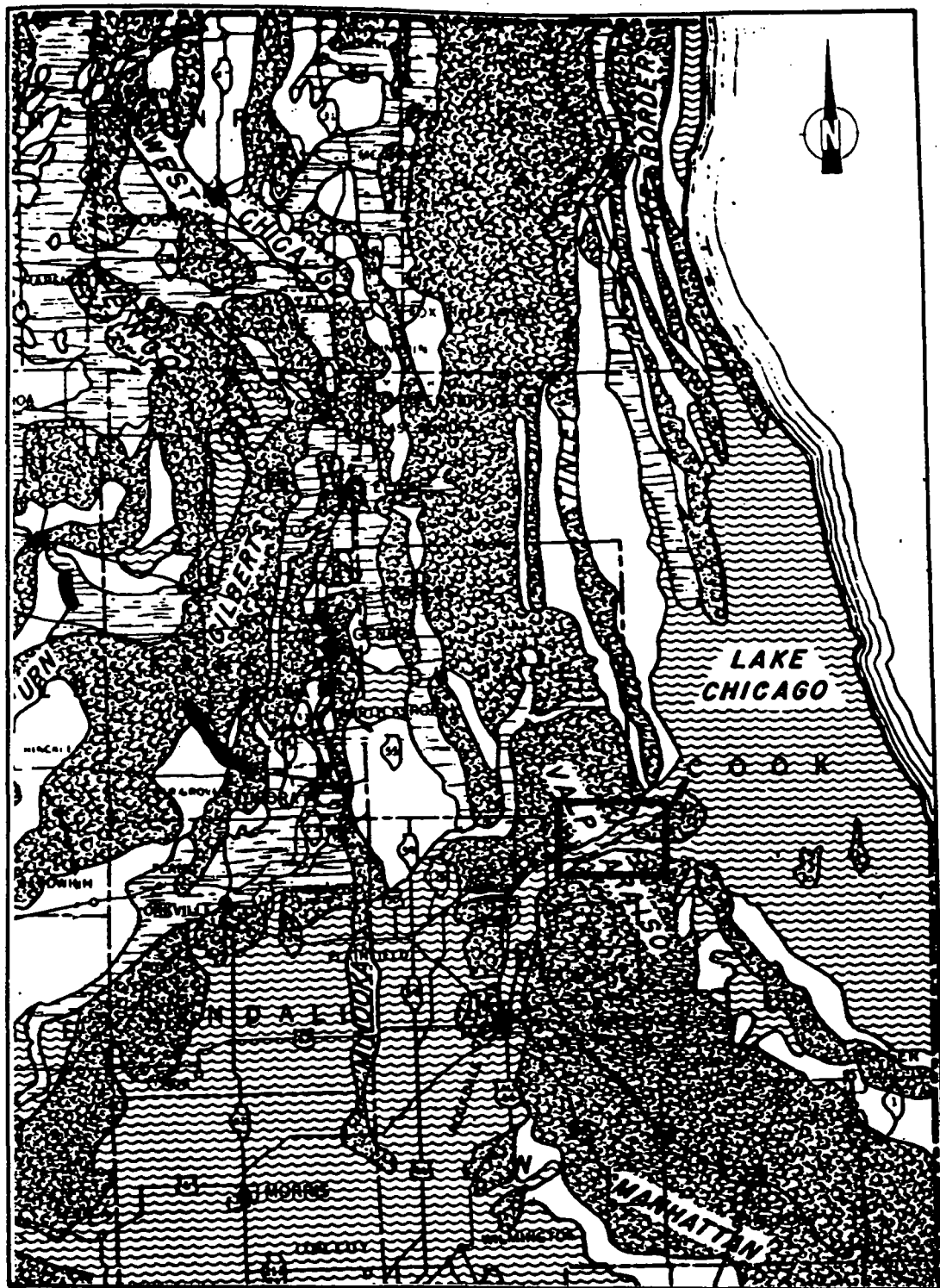
Glaciofluvial deposits in the region are generally well-sorted bodies of clay, sand, or gravel that are expressed at the surface as kames, kame terraces, and eskers. Some of these features are draped along the slopes of more prominent moraine or bedrock topographic highs. Glaciofluvial sediments are also interbedded with till material as lenticular, discontinuous, and erratically distributed bodies. Some glaciofluvial material is also found as residual valley train deposits in major drainages that have survived to the present day, such as the Des Plaines valley (Zeizel et al. 1962; Willman 1971) (see Figure 2-6 for regional surficial geology of the site area).

The major drainage for glacial Lake Chicago is known as the Chicago outlet. This feature, which was active intermittently throughout much of Wisconsinan time, eroded through previously existing drift to form the Des Plaines valley, which forms the channel of the present-day Des Plaines River. The erosion of the Chicago outlet was so extensive that bedrock has been exposed along some stretches of the Des Plaines valley (Willman 1971).

Regional bedrock consists of a massive sequence of sedimentary rocks that were deposited in the basin and along the margins of a shallow continental sea (Willman 1971) (see Figure 2-7 for a generalized stratigraphic column of the site area).

Silurian rocks form the bedrock surface throughout most of the region. Composed almost exclusively of dolomite, these rocks are divided into series that are separated by minor interruption in sedimentation. The younger Niagaran System consists of three formations. The youngest of these, the Racine Dolomite, is characterized by large reefs of pure dolomite that are flanked by argillaceous and silty dolomite with lenses of green shale. The Waukesha Dolomite is a brownish, slightly silty, fine-grained dolomite that occurs in smooth-surfaced beds. The Joliet Dolomite, the basal formation of the Niagaran System in the region, is characterized by interbedded, red, coarse dolomite and greenish-gray, argillaceous dolomite with green and red shale partings between the beds, light gray to white cherty dolomite, and mottled pink, vuggy pure dolomite (Willman 1971).

The Alexandrian Series of the Silurian System consists of two formations in the region. The Kankakee Dolomite is composed of gray to



SOURCE: Thornburn, 1960.

SCALE

0 10 20 30 MILES

LEGEND



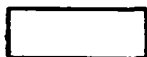
MORAINIC RIDGES



ALLUVIATED VALLEYS AND
OUTWASH PLAINS



LAKEBED SEDIMENTS

























GROUND MORaine



ICE-CONTACT STRATIFIED
DRIFT

FIGURE 2-6 REGIONAL SURFACE GEOLOGY OF THE SITE AREA

SYSTEM	SERIES	GROUP OR FORMATION	GEOHYDROLOGIC UNITS	LOG	THICKNESS (FT)	DESCRIPTION
QUATERNARY DEVONIAN	PLEISTOCENE		Glacial drift aquifers		0-200±	Unconsolidated glacial deposits-pebbly clay (till), silt, sand and gravel Alluvial silts and sands along streams
					Fissure Fillings	Shale, sandy, brown to black
SILURIAN	NIAGARAN	Racine Waukesha Joliet	Niagaran aquifer		0-170	Dolomite, very pure to highly argillaceous, silty, cherty; reefs in upper part
						Dolomite, shaly, and shale, dolomitic; maroon, green, pink
	ALEXANDRIAN	Kankakee Edgewood	Alexandrian aquifer		0-90	Dolomite, glauc.; thin grn. shale partings Dolomite, argillaceous, silty and/or sandy, cherty
		Neda			0-20	Shale, red; oolites
	CINCINNATIAN	Maquoketa	Confining beds of the Maquoketa Formation		85-230	Shale, silty, dolomitic, greenish gray, weak (Upper unit) Dolomite and limestone, white, light gray interbedded shale (Middle unit) Shale, dolomitic, brown, gray (Lower unit)
						
	MOHAWKIAN	Galena Decorah Platteville	Galena-Platteville		300-350	Dolomite, and/or limestone, cherty Dolomite, shale partings, speckled Dolomite and/or limestone, cherty, sandy at base
		Glenwood				
	CHAZYAN	St. Peter	Glenwood-St. Peter		200-375	Sandstone, fine and coarse grained; little dolomite; shale at top Sandstone, fine to medium grained; locally cherty red shale at base
						
CAMBRIAN	CROIXAN	PRAIRIE DU CHIEN	Shakopee New Richmond Oneota		0-200	Dolomite, sandy, cherty (oolitic); sandstone Sandstone interbedded with dolomite Dolomite, white to pink, coarse grained cherty (oolitic), sandy at base
					80-190	Dolomite, white, fine grained; geodic quartz; sandy at base
		Trempealeau	Trempealeau			
		Franconia	Franconia		70-100	Dolomite, sandstone and shale, glauconitic, green to red, micaceous
		Ironton	Ironton-Galesville		175-200	Sandstone, fine to coarse grained, well sorted; upper part dolomitic
		Galesville				
			Confining beds of the Eau Claire Formation (upper and middle beds)		300-400	Shale and siltstone, dolomitic, glauconitic; sandstone, dolomitic, glauconitic
		Eau Claire				
			Eau Claire (lower beds) and Mt. Simon Formations		2,000±	Sandstone, coarse grained, white, red in lower half; lenses of shale and siltstone, red, micaceous
		Mt. Simon				

Precambrian

SOURCE: Zeisel, et al. 1962

FIGURE 2-7 AREA STRATIGRAPHY

pinkish-gray or white dolomite. The Edgewood Dolomite is argillaceous, cherty brownish-gray dolomite (Willman 1971).

The Ordovician System in the region comprises 17 formations in 3 series. These formations, from youngest to oldest, are divided into five groups as follows: 1) Maquoketa Group--Neda Formation (oolitic limestone), Brainard Shale, Fort Atkinson Limestone, Scales Shale; 2) Galena Group--Dunleith and Wise Lake formations (limestone and dolomite), Guttenberg Formation (dolomite and limestone); 3) Platteville Group--Nachusa Formation (dolomite and limestone), Grand Detour Formation (limestone and dolomite), Mifflin Formation (limestone and dolomite), Pecatonia Dolomite; 4) Ancell Group--Glenwood Formation (sandstone, dolomite, and shale), St. Peter Sandstone; 5) Prairie du Chien Group--Shakopee Dolomite, New Richmond Sandstone, Oneota Dolomite, Gunter Sandstone (Willman 1971).

The Cambrian System in the region comprises seven formations. These formations, from youngest to oldest, are as follows: Eminence Formation (sandy dolomite), Potosi (Trempeleau) Dolomite, Franconia Formation (dolomite), Ironston Sandstone, Galesville Sandstone, Eau Claire Formation (sandstone), and Mt. Simon Sandstone (Willman 1971).

The bedrock in the region of the HM site lie along the northeastern flank of the Kankakee Arch. This broad, asymmetrical anticline, trending northwest and southeast, is a northwestern extension of the Cincinnati Arch and separates the Michigan and Illinois basins. Dip of the bedrock is less than 1 degree east and southeast.

Hydrogeology. The groundwater system in the region of the HM site consists of six basic geohydrologic units: glacial drift aquifers, Silurian dolomite aquifer, leaky confining beds of the Maquoketa Group, Cambrian-Ordovician aquifer, confining beds of the Eau Claire Formation, and Mt. Simon aquifer.

Sand and gravel of the surficial glacial deposits constitute the Prairie Aquigroup. This aquifer is poorly distributed in the region. Wells that draw from the Prairie Aquigroup in DuPage County range in depth from 61 to 136 feet and produce 20 to 750 gallons per minute (gpm) (Voller, Sanderson, and Sargent 1986; Zeizel et al. 1962).

Silurian Dolomite in the region constitute the shallow Upper Bedrock Aquigroup. Zones of saturation exist primarily in joints and

fractures, which have been enlarged by solutioning, in the eroded surface of the Niagaran Series. Wells that draw from the shallow Upper Bedrock Aquigroup in DuPage County range in depth from 75 to 425 feet and produce from 200 to 2,500 gpm (Woller, Sanderson, and Sargent 1986; Zeizel et al. 1962).

Relatively impermeable shale beds of the Maquoketa Group underlie the Silurian Dolomite. These beds allow leakage from the Silurian Dolomite into the underlying units (Woller, Sanderson, and Sargent 1986; Zeizel et al. 1962).

The Cambrian-Ordovician, or the Midwest Aquigroup, underlies the Maquoketa Group. Small yields are obtained from joints and fractures in the Galena and Platteville groups and the Prairie du Chien Group, and from poorly indurated zones of the Glenwood and St. Peter sandstones. The main producing formations of this aquifer are the Ironton and Galesville sandstones, which are consistently permeable, clean, and friable. Wells in DuPage County that draw from the Midwest Aquigroup range in depth from 1,356 to 1,630 feet and yield 500 to 1,350 gpm (Woller, Sanderson, and Sargent 1986; Zeizel et al. 1962).

The Eau Claire Formation, which underlies the Ironton and Galesville sandstones, acts as a relatively impermeable confining layer that maintains head pressure between the Midwest Aquigroup and the underlying aquifer (Woller, Sanderson, and Sargent 1986; Zeizel et al. 1962).

The deepest aquifer in the region is the Mt. Simon Formation, which constitutes the Basal Bedrock Aquigroup. This aquifer is generally salty and of poor quality. Wells in DuPage County that draw from this aquifer range in depth from 1,793 to 2,062 feet and produce 750 to 1,000 gpm (Woller, Sanderson, and Sargent 1986; Zeizel et al. 1962).

Regional groundwater flow in the shallow bedrock aquifer is toward the Des Plaines River, as determined during the ESI/GPA.

developed as a result of differences in the solubility, persistence, molecular weight, and time of dumping of these hazardous substances.

TCL compounds and TAL analytes detected above background levels in FIT-collected soil and groundwater samples are believed by FIT to be attributable to the site because an unknown quantity of unidentified wastewater and waste chemicals were dumped into two unlined lagoons near the center of the site from 1958 to 1978. FIT believes that hazardous substances have infiltrated the substrate through the unlined walls and floors of these lagoons.

4.3 SITE-SPECIFIC GEOLOGY AND STRATIGRAPHY

The geology of the HM site was characterized by analyzing soil samples and soil/rock borings collected during the hydrogeologic investigation and reviewing the background data, maps, and literature. Characterization of the site geology was in part based on visual inspection of soil/rock samples collected during the drilling of monitoring wells. Descriptions of the soil samples are included in the logs of FIT-collected soil/rock borings. A fence diagram has also been prepared to illustrate the stratigraphy of the site area (see Figure 4-1 for a geologic fence diagram of the site and Appendix F for well logs of the area of the site).

Fill material ranging in thickness from 0 to approximately 7 feet rests atop the thin blanket of glacially derived unconsolidated deposits at monitoring well nests MW2 and MW3. The fill material is composed of a mixture of clay, sand, and gravel. The unconsolidated Quaternary glacial deposits range in thickness from approximately 21 1/2 to 27 feet in thickness at the site, and consist of a dense-to-very-dense dark gray and medium-brown clay with trace sand and small amounts of coarse-to-fine gravel. These materials are presumed to have been deposited as till and ground moraine deposits.

Beneath the unconsolidated deposits is a glacially eroded surface that consists of a severely eroded bedrock surface overlain by glacially derived boulders. During the drilling of well MW1D, the drill rig encountered a boulder of granite.

A

3

The bedrock beneath this boulder field is the Silurian Joliet Dolomite. The light gray, slightly vuggy dolomite had little chert throughout the formation, was fractured, and contained abundant dark brown staining. Veins of pyrite were also present, and pyrite was observed in the fractured zones. Green staining and veins were also present throughout the entire specimen. A few fossils were present, including a cephalopod and some corals. The horizontal breaks were slightly argillaceous. Fractures in the bedrock were both vertical and horizontal. The horizontal fractures were most likely caused by mechanical breaks, and the vertical fractures were oriented from approximately 45 to 180 degrees from the horizontal plane of the core samples. Regional dip of the bedrock is less than 1 degree to the southeast (Zeizel et al. 1962).

4.4 GROUNDWATER HYDROLOGY

Groundwater levels were measured in all of the FIT-installed monitoring wells on June 29 and September 19, 1991 (see Table 4-3 for monitoring well water level measurements).

Figure 4-2 is a map of the water surface in the shallow unconsolidated aquifer beneath the HM site. This map was constructed by plotting water levels from the June 1991 measurements and interpolating contours of equal water surface elevations. These water levels indicate that the hydrostatic head, or water level, in the southeastern portion of the site is approximately 3 feet greater than in the northwestern portion of the site. The contours indicate that local groundwater flow generally follows the site topography, with the horizontal gradient becoming steeper along the SSC. Movement of groundwater is generally perpendicular to the contours and is therefore considered to be from the southeast to the northwest, toward the SSC and the Des Plaines River.

Figure 4-3 is a map of the piezometric surface of the deeper bedrock aquifer at the HM site. The difference in the hydrostatic head at the southeastern portion of the site is approximately 8 feet greater than in the northwestern portion of the site. Groundwater flow is considered to be from the southeast to the northwest, also toward the Des Plaines River.

Groundwater Gradients. Horizontal water level gradients between monitoring well nests MW1 and MW2 are presented in Table 4-4. These

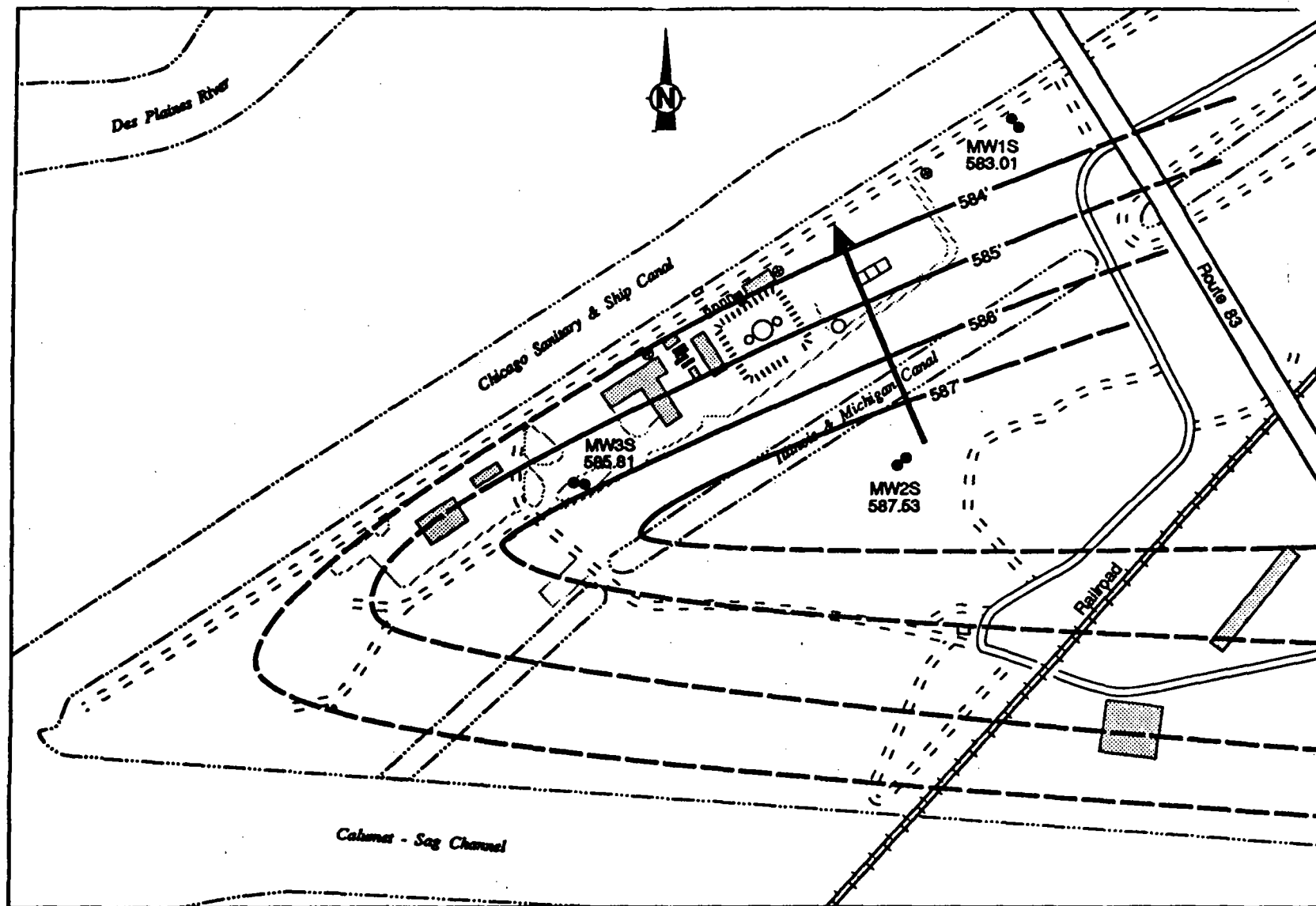


FIGURE 4-2 PIEZOMETRIC SURFACE MAP, SHALLOW WELLS

gradients were calculated as the difference between the hydrostatic head between wells (in feet) divided by the approximate horizontal distance between the wells (in feet). The gradient transect between nests MW1 and MW2 was chosen because it most closely parallels the inferred direction of groundwater flow.

Vertical hydraulic gradients at the three monitoring well nests were calculated using the following formula.

$$\text{Vertical gradient} = dh/dl,$$

where dh = (head of shallow well) - (head of deep well)
and dl = vertical distance in feet between the midpoints of shallow and deep screens.

The calculated vertical gradients are shown in Table 4-5. This formula yields positive numbers where the head in the shallow well is higher than the head in the deeper well, and negative numbers where the levels are reversed. The consistent positive values for nest MW1 indicate that there is downward flow, or at least a tendency toward downward flow, of groundwater in the area of the site. This is near the area of the former unlined lagoons, and monitoring wells MW1S and MW1D were found to contain high levels of TCL compounds and TAL analytes.

4.5 GROUNDWATER TARGETS

The principal aquifer in the site area and the aquifer of concern (AOC) is the shallow Upper Bedrock Aquigroup (Woller, Sanderson, and Sargent 1986) (see Appendix F for well logs of the area of the site). The cities of Darien, Rosewood, Lake of the Woods, and Lemont operate municipal wells within a 4-mile radius of the site that draw from this aquifer. The populations served by these municipal water systems are: Darien, 4,500; Rosewood, 5,066; Lake of the Woods, 2,952; and Lemont, 6,858 (Lemont Water Department 1991; Darien Department of Public Works 1991; DuPage County Department of Public Works 1991). Argonne National Laboratory operates three wells within a 4-mile radius of the site, which serve 4,000 employees (Locker 1991). The Tri-State water system is an independently owned water supplier that serves 700 persons within a 4-mile radius of the site.

Persons not served by these distribution systems rely on private wells for their drinking water. The number of persons using private wells within a 4-mile radius of the site is 2,670. This number was obtained by counting houses on USGS topographic maps and multiplying by the number of persons per household in Cook, DuPage, and Will counties (USGS 1962, 1963, 1963a; U.S. Bureau of the Census 1980).

The total groundwater target population within a 4-mile radius of the HM site is 26,746 persons. The private well nearest to the site is located approximately 1/4 mile northwest of the site.

Based on FIT determinations of groundwater flow, all of these wells are upgradient of the HM site. No private wells are located between the site and the Des Plaines River.

5. SUMMARY

The following conclusions can be drawn from the results of the ESI/GPA for the HM site.

- There are two main aquifers in the subsurface at the HM site. Drilling logs show that the upper aquifer is found in unconsolidated sand and gravel glaciogenic deposits, and the lower aquifer is found in the fractured and eroded underlying dolomite. There is no continuous confining layer between the two aquifers and they are considered to be hydraulically connected. In the northeastern portion of the site there is a consistent downward vertical hydraulic gradient toward the lower aquifer. Therefore, the upper and lower aquifers together constitute the AOC.
- Groundwater flow in both aquifers is to the northwest, toward the Des Plaines River.
- TCL compounds and TAL analytes are present above background and upgradient levels in the subsurface soil and groundwater at the HM site.
- Only a few TCL compounds were detected in groundwater in the subsurface of the HM site. An observed release of benzene (11,000ED µg/L) has been documented in well MW1S, through FIT-conducted groundwater sampling.

_____, 1991, ESI/GPA work plan for the HM site, U.S. EPA ID:
ILD069496248.

Foster, Catherine, September 4, 1991, Director of Science Communications
and Public Affairs, Argonne National Laboratory.

Guizzon, Chris, September 4, 1991, Department of Planning, City of
Lemont, telephone conversation, contacted by Philip Granchi of
E & E.

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7480:3

CHICAGO SANITARY & SHIP CANAL

ILLINOIS & MICHIGAN CANAL

POWELL DUFFRYN TERMINAL

POWELL DUFFRYN

ALEXANDER CHEMICAL

POWELL DUFFRYN TERMINAL

ILLINOIS & MICHIGAN CANAL

CALUMET SAG

ILLINOIS CENTRAL GULF RAILROAD

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY		SITE: Powell Duffryn Terminal	
PHOTOGRAPH LOCATION MAP		SITE ID #980823835	
T.37 North R.11E. Section 14 Cook County, Illinois		1988	
Aerial photograph Courtesy of: Illinois Dept. of Transportation		MAP SCALE 1" = 200'	

N
E
S
W

U.S. Department
of Transportation

United States
Coast Guard



Commanding Officer
United States Coast Guard
Marine Safety Office

215 West 83rd St., Suite D
Burr Ridge, IL 60521
Phone: (708) 789-5830

5720

21 August 1992

Mr. John Sherrill
Bureau of Land, RPMS
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62794

**Reference
Number 7**

Dear Mr. Sherrill,

Attached is the information you requested under the Freedom of Information Act in your letter of August 12, 1992. If you need any additional information please contact LCDR Jim Milbury at the number listed above.

Sincerely,

A handwritten signature in cursive script, appearing to read "L. J. Balok".

L. J. BALOK

Captain, U.S. Coast Guard

RECEIVED
AUG 25 1992
IEPA/DLPC

Department of Transportation
United States
Coast Guard



Captain of the Port
U.S. Coast Guard

610 S. Canal St.
Chicago, Il. 60607
Tel: 312 353-1226

16600

JAN 11 1989

Powell Duffryn Terminals Inc.
Attn: Mr. Larry Brew
P. O. Box 727
Lemont, Illinois 60439

LETTER OF ADEQUACY FOR OIL FACILITY OPERATIONS MANUAL

Dear Mr. Brew:

We have completed a review of your Facility Operations Manual. The manual fulfills the requirements of Title 33, Code of Federal Regulations, Sections 154.300 and 154.310, and is therefore approved. This approval does not extend to information beyond that required by the above regulations. All previous "Letters of Adequacy" are superseded.

A copy of this "Letter of Adequacy" should be placed in the front of your Facility Operations Manual. A copy of your approved manual should be readily available to each Person-in-charge while conducting an oil transfer operation.

Amendments to the manual should be made in accordance with 33 CFR 154.320.

Additional regulations in 33 CFR 126.15(o) apply when handling flammable or combustible liquids.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. A. UMBERGER".

J. A. UMBERGER
Captain, U.S Coast Guard

RECEIVED

AUG 25 1992

IEPA/DLPC

DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD CG-4200 (Rev. 7-69)		WATERFRONT FACILITY INSPECTION REPORT		REPORT NUMBER DATE <u>27 MAR 91</u> TIME <u>1050</u> TELEPHONE NUMBER <u>(312) 353-1226</u>	
U. S. COAST GUARD CAPTAIN OF THE PORT, <u>MSO CHICAGO</u>					
FACILITY <u>POWELL DUFFRYN</u>		OWNER <u>POWELL DUFFRYN</u>		OPERATOR 	
NOTE: Check column "C" when immediate action is taken by Facility to correct the discrepancy.					
YES	NO	C	STATEMENTS TAKEN FROM 33 CFR 126.15, 126.16		NATURE OF NON-COMPLIANCE
X			15(a) Guards adequate		
X			(b) Smoking regulations obeyed		
X			(c) Hot work permit obtained when required		
X			(d) Vehicles parked properly		
		X	(e) Automotive equipment in safe conditions		
X			(f) Rubbish and debris removed		
X			(g) Dangerous supplies properly stowed		
X			(h) Electrical equipment safe		
X			(i) Heating equipment safe		
X			(j) Fire extinguishing appliances adequate		
X			(k) Fire extinguishing appliances marked		
		X	(l) Adequate illumination		
X			(m) Proper access to fire fighting equipment:		(1) LIGHT SOCKETS EXPOSED
			(1) Two-foot clearance around cargo		
			(2) Combustible material properly tiered		
			(3) Four-foot clearance around extinguishers		
			(4) Three foot aisle to extinguishers		
			(5) Twenty foot main aisle		
			(6) Five foot cross aisles		
			(o) Drip pans provided		
			16(b) Warning devices present		
YES	NO	C	OTHER SECTIONS OF 33 CFR 126		NATURE OF VIOLATION
			17 Class A explosives in excess of permit		
			21 Designated dangerous cargo remaining		
			27(b) Excessive dangerous cargoes		
			27(c) Prohibited explosives		
			27(d)-(g) Improper stowage or handling		
			27(h) Improper labels		
			33 Dangerous cargo present while general permit suspended		
YES	NO	C	OTHER STATUTE/REGULATION		NATURE OF DISCREPANCY
	X		LIGHT SOCKETS ON STATIONS 2 1/2, 3, 4, 5 NEED TO BE REPLACED OR CLOSED OFF. CORRECT BY APRIL 05.		
PRINCIPAL DANGEROUS CARGO/CLASS			TONNAGE		BIN/AREA
					RECEIVED AUG 25 1992 IEPA/DLPC
INSPECTED BY <u>Btko/Conner/Schaffer</u>			COPY RECEIVED BY <u>Mike Penick</u>		POSITION <u>SUPERVISOR</u>

These violations of Title 33, Code of Federal Regulations, Part 126 or other hazardous conditions as indicated above were observed in an inspection of your Facility this date. In order to avoid loss of your general permit to handle dangerous cargo or discontinuance of berthing vessels at your Facility, immediate action to correct these deficiencies is required.

PREVIOUS EDITION MAY BE USED

FOLLOW - UP

DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD CG-4200 (Rev. 7-69)		WATERFRONT FACILITY INSPECTION REPORT		REPORT NUMBER <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;">DATE</td> <td style="width:50%; border: none;">TIME</td> </tr> <tr> <td style="border: none;"><i>05 Apr 91</i></td> <td style="border: none;"><i>10/19</i></td> </tr> <tr> <td colspan="2" style="border: none;">TELEPHONE NUMBER</td> </tr> <tr> <td colspan="2" style="border: none;"><i>(312) 353-1226</i></td> </tr> </table>		DATE	TIME	<i>05 Apr 91</i>	<i>10/19</i>	TELEPHONE NUMBER		<i>(312) 353-1226</i>	
DATE	TIME												
<i>05 Apr 91</i>	<i>10/19</i>												
TELEPHONE NUMBER													
<i>(312) 353-1226</i>													
U. S. COAST GUARD CAPTAIN OF THE PORT, <i>MSO Chicago, IL</i>													
FACILITY <i>Powell Duffryn</i>		OWNER <i>Powell Duffryn</i>		OPERATOR 									
NOTE: Check column "C" when immediate action is taken by Facility to correct the discrepancy.													
YES	NO	C	STATEMENTS TAKEN FROM 33 CFR 126.15, 126.16		NATURE OF NON-COMPLIANCE								
		/	15(a) Guards adequate (b) Smoking regulations obeyed (c) Hot work permit obtained when required (d) Vehicles parked properly (e) Automotive equipment in safe conditions (f) Rubbish and debris removed (g) Dangerous supplies properly stowed (h) Electrical equipment safe (i) Heating equipment safe (j) Fire extinguishing appliances adequate (k) Fire extinguishing appliances marked (l) Adequate illumination (m) Proper access to fire fighting equipment: (1) Two-foot clearance around cargo (2) Combustible material properly tiered (3) Four-foot clearance around extinguishers (4) Three foot aisle to extinguishers (5) Twenty foot main aisle (6) Five foot cross aisles (o) Drip pans provided 16(b) Warning devices present										
		/			OTHER SECTIONS OF 33 CFR 126 17 Class A explosives in excess of permit 21 Designated dangerous cargo remaining 27(b) Excessive dangerous cargoes 27(c) Prohibited explosives 27(d)-(g) Improper stowage or handling 27(h) Improper labels 33 Dangerous cargo present while general permit suspended		NATURE OF VIOLATION						
		/	OTHER STATUTE/REGULATION <i>Light sockets on stations 2,3,4,5</i> <i>NEED to be replaced or closed off. No correction due to tornado relief throughout Plant.</i> <i>Reinspection in 2 weeks. 19 April 91</i>		NATURE OF DISCREPANCY								
PRINCIPAL DANGEROUS CARGO/CLASS			TONNAGE	BIN/AREA									
INSPECTED BY <i>TAMOS</i>		COPY RECEIVED BY <i>Tim Ambrose</i>		POSITION <i>Compliance Manager</i>									
These violations of Title 33, Code of Federal Regulations, Part 126 or other hazardous conditions as indicated above were observed in an inspection of your Facility this date. In order to avoid loss of your general permit to handle dangerous cargo or discontinuance of berthing vessels at your Facility, immediate action to correct these deficiencies is required.													

DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD CG-4200 (Rev. 7-69)		WATERFRONT FACILITY INSPECTION REPORT		REPORT NUMBER <div style="display: flex; justify-content: space-between;"> <div>DATE 16 Apr 91</div> <div>TIME 1220</div> </div> TELEPHONE NUMBER 312-353-1226	
U. S. COAST GUARD CAPTAIN OF THE PORT, <i>NAVINE SAFETY OFFICE CHICAGO</i>				312-353-1226	
FACILITY <i>POWELL OUTFRYN</i>		OWNER <i>POWELL OUTFRYN</i>		OPERATOR	
NOTE: Check column "C" when immediate action is taken by Facility to correct the discrepancy.					
YES	NO	C	STATEMENTS TAKEN FROM 33 CFR 126.15, 126.16		NATURE OF NON-COMPLIANCE
			15(a) Guards adequate (b) Smoking regulations obeyed (c) Hot work permit obtained when required (d) Vehicles parked properly (e) Automotive equipment in safe conditions (f) Rubbish and debris removed (g) Dangerous supplies properly stowed (h) Electrical equipment safe (i) Heating equipment safe (j) Fire extinguishing appliances adequate (k) Fire extinguishing appliances marked (l) Adequate illumination (m) Proper access to fire fighting equipment: (1) Two-foot clearance around cargo (2) Combustible material properly tiered (3) Four-foot clearance around extinguishers (4) Three foot aisle to extinguishers (5) Twenty foot main aisle (6) Five foot cross aisles (o) Drip pans provided 16(b) Warning devices present		
					OTHER SECTIONS OF 33 CFR 126
			17 Class A explosives in excess of permit 21 Designated dangerous cargo remaining 27(b) Excessive dangerous cargoes 27(c) Prohibited explosives 27(d)-(g) Improper stowage or handling 27(h) Improper labels 33 Dangerous cargo present while general permit suspended		
YES	NO	C	OTHER STATUTE/REGULATION		NATURE OF DISCREPANCY
			<i>ALL DISCREPANCIES CORRECTED AS 27 MARCH 91 FACILITY INSPECTION</i>		
PRINCIPAL DANGEROUS CARGO/CLASS			TONNAGE	BIN/AREA	
				RECEIVED AUG 25 1992 JEP/ALPC <i>Superintendent</i>	
INSPECTED BY <i>DC3 Roby / BM2 GRAY</i>			COPY RECEIVED BY <i>Mike Grayson</i>		POSITION <i>Superintendent</i>
These violations of Title 33, Code of Federal Regulations, Part 126 or other hazardous conditions as indicated above were observed in an inspection of your Facility this date. In order to avoid loss of your general permit to handle dangerous cargo or discontinuance of berthing vessels at your Facility, immediate action to correct these deficiencies is required.					

Harbor Patrol / Waterfront Facility Spot Check Report

Facility: POWELL DUFFRYN
CHICAGO SANITARY AND SHIP
CANAL MILE 303.2

Date: 25 MAR 92
PS92029897
Time: 1140

Deficiency

Citation

Action

1 CARGO HOSE USED FOR TRANSFER
NOT MARKED WITH APPROPRIATE
INFORMATION IN ACCORDANCE WITH
CITATION.

33 CFR 154.500(e)

CORRECTION REQUIRED
WITHIN
30 DAYS.

Copy
Delivered to:

MIKE PAVLICH
Name

SUPERINTENDENT
Position

USCG

Representative:

J. G. SCHAEFFER
Name
J. H. Schaeffer
Signature

U. S. Coast Guard
Marine Safety Office
610 S. Canal St.
Chicago, IL 60607
(312) 353-1226

This report is for information only. Notice will be given if penalty action is initiated.

HYDROGEN PEROXIDE (70%)	101	T\T-RAIL	40,000
✓HYDROGEN PEROXIDE (50%)	102	T\T-RAIL	10,000
DE-IONIZED WATER	103		3,000
✓SOLVENT 1-1-1 DF	111	T\T-RAIL	22,666
✓ISOPROPANOL	112	T\T-RAIL	21,530
✓ETHYLENE DICHLORIDE	113	T\T-RAIL	24,922
.....	199	T\T-BARGE-RAIL	294,000
CAUSTIC POTASH	200	T\T-BARGE-RAIL	210,000
ETHYLENE GLYCOL	201	T\T-BARGE-RAIL	630,000
ETHYLENE GLYCOL	202	T\T-BARGE-RAIL	630,000
ETHYLENE GLYCOL	203	T\T-BARGE-RAIL	630,000
ETHYLENE GLYCOL	204	T\T-BARGE-RAIL	630,000
MINERAL SEAL OIL	205	T\T-BARGE-RAIL	630,000
.....	206	T\T-BARGE-RAIL	630,000
ETHYLENE GLYCOL	207	T\T-BARGE-RAIL	630,000
.....	208	T\T-BARGE-RAIL	630,000
✓ACETONE	209	T\T-BARGE-RAIL	630,000
ETHYLENE GLYCOL	210	T\T-BARGE-RAIL	630,000
.....	211	T\T-BARGE-RAIL	210,000
CAUSTIC SODA, DIAPHRAM GRADE	212	T\T-BARGE-RAIL	635,000
CAUSTIC SODA, DIAPHRAM GRADE	213	T\T-BARGE-RAIL	635,000
✓TRICHLOROETHYLENE	214	T\T-BARGE-RAIL	30,000
✓TRICHLOROETHYLENE	215	T\T-BARGE-RAIL	30,000

.....	216	T\T-BARGE-RAIL	300,000
CAUSTIC POTASH	217	T\T-BARGE-RAIL	300,000
CALCIUM CHLORIDE 38%	218	T\T-BARGE-RAIL	420,000
CAUSTIC SODA, RAYON GRADE	219	T\T-BARGE-RAIL	630,000
CALCIUM CHLORIDE 38%	221	T\T-BARGE-RAIL	420,000
✓ METHYLENE CHLORIDE	223	T\T-BARGE-RAIL	420,000
✓ METHYLENE CHLORIDE	224	T\T-BARGE-RAIL	420,000
NAPHTHENIC LUBE OIL	225	T\T-BARGE-RAIL	420,000
{ ASPHALT	226	T\T-BARGE-RAIL	420,000
{ ASPHALT	227	T\T-BARGE-RAIL	420,000
{ METHYLENE CHLORIDE	228	T\T-BARGE-RAIL	420,000
1,1,1 TRICHLOROETHANE	229	T\T-BARGE-RAIL	420,000
{ PERCHLORETHYLENE	230	T\T-BARGE-RAIL	420,000
{ ASPHALT	231	T\T-BARGE-RAIL	2,200,000
{ ASPHALT	232	T\T-BARGE-RAIL	2,200,000
CAUSTIC SODA, DIAPHRAM GRADE	233	T\T-BARGE-RAIL	630,000
.....	234	T\T-BARGE-RAIL	420,000
✓ ACETONE	235	T\T-BARGE-RAIL	630,000
REGULAR MINERAL SPIRITS	236	T\T-BARGE-RAIL	630,000
CAUSTIC SODA, LOW SALT	237	T\T-RAIL	420,000
RUN-WAY DE-ICER	238	T\T	420,000
MONOETHYLENE GLYCOL	239	T\T-BARGE-RAIL	420,000

MINERAL SPIRITS (STODDARD SOLVENT)	240	T/T-BARGE-RAIL	420,000
METHYLENE CHLORIDE	241	T\T-RAIL	30,000
.....	242		30,000
1,1,1 TRICHLOROETHANE (AEROSOL GRADE	243	T\T-RAIL	30,000
1,1,1 TRICHLOROETHANE (AEROSOL GRADE	244	T\T-RAIL	30,000
1,1,1 TRICHLOROETHANE (AEROSOL GRADE	245	T\T-RAIL	30,000
PERCHLORETHYLENE	246	T\T-RAIL	30,000
1,1,1 TRICHLOROETHANE	247	T\T-RAIL	30,000
CAUSTIC POTASH	248	T\T-RAIL	30,000
CAUSTIC POTASH	249	T\T-RAIL	30,000
TRICHLORETHYLENE	250	T\T-RAIL	30,000
NAPHTHENIC LUBE OIL	251	T\T-BARGE-RAIL	630,000
STEPAN C-25 (METHYL ESTER)	411	T\T-BARGE-RAIL	420,000
UNLEADED RACING GAS 07/90	412	T\T-BARGE-RAIL	420,000
.....	413	T\T-BARGE-RAIL	420,000
METHANOL	414	T\T-BARGE-RAIL	420,000
AUTOMOTIVE ANTI-FREEZE - OWAP	415	T\T-RAIL	420,000
AUTOMOTIVE ANTI-FREEZE - TEXACO	416	T\T-RAIL	420,000
CAUSTIC POTASH	417	T\T-BARGE-RAIL	420,000
XYLENE	421	T\T-BARGE-RAIL	420,000
UNLEADED RACING GAS	422	T\T-BARGE-RAIL	420,000
XYLENE	423	T\T-BARGE-RAIL	420,000
140 SOLVENT (PETROLEUM NAPHTHA)	424	T\T-BARGE-RAIL	420,000
WING DE-ICER 30 - TEXACO	425	T\T-RAIL	420,000

AUTOMOTIVE ANTI-FREEZE - TEXACO	426	T\T-RAIL	420,000
METHANOL	427	T\T-BARGE-RAIL	420,000
PHOSPHORIC ACID	500	T\T	7,600
DIPOTASSIUM PHOSPHATE	501	T\T	12,000
POLYTRIAZOLE (COBRATEC)	502	T\T	12,000
CAUSTIC POTASH	503	T\T	12,000
CAUSTIC SODA	504	T\T	12,000
AUTOMOTIVE ANTI-FREEZE(EG) FLTGARD	505	T\T	12,000
AIR CRAFT WING DE-ICER(PG) OCTAGON	506	T\T	30,000
AIR CRAFT WING DE-ICER(PG) OCTAGON	507	T\T	30,000
ETHYLENE GLYCOL	508	T\T	30,000
AUTOMOTIVE ANTI-FREEZE(EG) FLTGARD	509	T\T	30,000
ETHYLENE GLYCOL	510	T\T	30,000
EQUIPMENT ANTI-FREEZE(EG) TEXACO	511	T\T	30,000
AUTOMOTIVE ANTI-FREEZE(EG) TEXACO	512	T\T	30,000
AUTOMOTIVE ANTI-FREEZE(PG) FLTGARD	513	T\T	30,000
WING DE-ICER(PG) 50/50 OCTAGON	514	T\T	20,000
AUTOMOTIVE ANTI-FREEZE(EG)	515	T\T	20,000
ETHYLENE GLYCOL	516	T\T	20,000
ETHYLENE GLYCOL MIXTURE	517	T\T	12,000
AUTOMOTIVE ANTI-FREEZE(EG)	518	T\T	12,000
ETHYLENE GLYCOL CONCENTRATE NALCO	519	T\T	12,000
.....	520	T\T	12,000
TRIETHANOLAMINE 99%	BH1	T\T-RAIL	10,000
TRIETHANOLAMINE 99%	BH2	T\T-RAIL	10,000

INTERMODEL TANK CAR TO TANK TRUCK SYSTEM

SPOT # 1 - PROPYLENE GLYCOL U.S.P.

SPOT # 2 - BENZOFLEX 50 (BENZOATE ESTER)

SPOT # 3 - BENZOFLEX 9-88

SPOT # 4 - HEXYLENE GLYCOL

SPOT # 5 - PROPYLENE GLYCOL IND. GRADE

SPOT # 6 - TRIETHYLENE GLYCOL

SPOT # 10 -

SPOT # 11 -

SPOT # 12 -

POWELL DUFFRYN Terminals
LEMONT

**Reference
Number 2**

PRODUCT	TANK #	MODE OF TRANSPORT	CAPACITY (GALS)
STORM WATER	1		513,000
FIRE FIGHTING WATER	2		1,000,000
TRIBUTOXYETHYL PHOSPHATE	3	T\T-RAIL	10,000
RAYON GRADE CAUSTIC SODA	4	T\T-BARGE	630,000
CAUSTIC POTASH	5	T\T-BARGE	630,000
✓ XYLENE	6	T\T-BARGE	420,000
✓ ISOPROPYL ALCOHOL	7	T\T-RAIL	420,000
✓ METHANOL	8	T\T-BARGE	420,000
CAUSTIC SODA, DIAPHRAM GRADE	17	T\T-BARGE-RAIL	1,060,000
CAUSTIC SODA, MERCURY CELL	34	T\T-BARGE-RAIL	1,050,000
✓ ETHYLENE GLYCOL	36		630,000
.....	39	T\T-BARGE-RAIL	630,000
CAUSTIC SODA, DIAPHRAM GRADE	40	T\T-BARGE-RAIL	502,000
.....	41		217,000
VISTOPLEX (OIL ADDITIVE)	43	T\T-RAIL	56,000
CAUSTIC SODA, DIAPHRAM GRADE	44	T\T-BARGE-RAIL	259,000
✓ ETHYLENE GLYCOL	48		631,000
CAUSTIC SODA, DIAPHRAM GRADE	49	T\T-BARGE-RAIL	420,000
HYDROGEN PEROXIDE (70%)	50	T\T-RAIL	18,000
HYDROGEN PEROXIDE (70%)	51	T\T-RAIL	18,000
HYDROGEN PEROXIDE (50%)	52	T\T-RAIL	18,000
HYDROGEN PEROXIDE (35%)	53	T\T-RAIL	10,000
DE-IONIZED WATER	54		6,000

White Copy -
Ill. Dept. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

IN ALL PERTINENT
ARTMENT OF PUBLIC HE
ILLINOIS, 62706. DO NOT DE
PROVIDE PROPER WELL LOC

TION REQUESTED AND MAIL ORIGINAL TO STATE DE-
ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD,
GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug ☐ Bored ☐ Hole Diam. 5 in. Depth 120 ft.
Curb material ☐ Buried Slab: Yes ☐ No ☐
b. Driven ☐ Drive Pipe Diam. ☐ in. Depth ☐ ft.
c. Drilled ☒ Finished in Drift ☐ In Rock ☒
Tubular ☐ Gravel Packed ☐
d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:

Building 40 Ft. Seepage Tile Field 75'
Cess Pool ☐ Sewer (non Cast iron) ☐
Privy ☐ Sewer (Cast iron) ☐
Septic Tank 50' Barnyard ☐
Leaching Pit ☐ Manure Pile ☐

3. Is water from this well to be used for human consumption?

Yes ☒ No ☐

4. Date well completed 3-10-75

5. Permanent Pump Installed? Yes ☒ No ☐
Manufacturer Barnes Type Submersible
Capacity 10 gpm. Depth of setting 70 ft.

6. Well Top Sealed? Yes ☒ No ☐

7. Pitless Adaptor Installed? Yes ☒ No ☐

8. Well Disinfected? Yes ☒ No ☐

9. Water Sample Submitted? Yes ☐ No ☒

REMARKS: Owner instructed to take sample.

IDPH 4.065
10/68

Reference
Number 8

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Al Albrecht Well No.

Address Chicago-Joliet Road, Lemont, Ill.

Driller DuPage Pump, Inc. License No. 10243

11. Permit No. 35145 Date 12-04-74

12. Water from Limestone 13. County Cook

Formation

at depth to ft.

Sec. 14

14. Screen: Diam. in.

Twp. 37N

Length: ft. Slot

Rge. 11E

Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
<u>5</u>	<u>Steel 14.98</u>	<u>0'</u>	<u>63'</u>

SHOW
LOCATION IN
SECTION PLAT

Lot 3

Doolin & Kirker

Result:

Located in the above

described section

16. Size Hole below casing: 5 in.

17. Static level ft. below casing top which is 8 in. ft.

above ground level. Pumping level 50 ft. when pumping at 10 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
<u>Drift</u>	<u>63'</u>	<u>63'</u>
<u>Limestone</u>	<u>57'</u>	<u>120</u>

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Owner Albrecht DATE 3-10-75

P-25499

White Copy -
Ill. Dep. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

INSTRUCTIONS TO USERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug ☐ Bored ☐ Hole Diam. 5 in. Depth 145 ft.
Curb material ☐ Buried Slab: Yes ☐ No ☐
b. Driven ☐ Drive Pipe Diam. 5 in. Depth 40 ft.
c. Drilled ☒ Finished in Drift ☐ In Rock ☒
Tubular ☐ Gravel Packed ☐
d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
cement	-5'	40'

2. Distance to Nearest:

Building 30 Ft. Seepage Tile Field 75'
Cess Pool ☐ Sewer (non Cast iron) ☐
Privy ☐ Sewer (Cast iron) ☐
Septic Tank 50' Barnyard ☐
Leaching Pit ☐ Manure Pile ☐

3. Well furnishes water for human consumption? Yes ☒ No ☐

4. Date well completed 8-22-85

5. Permanent Pump Installed? Yes ☐ Date ☐ No ☒

Manufacturer ☐ Type ☐ Location ☐
Capacity ☐ gpm. Depth of Setting ☐ Ft.

6. Well Top Sealed? Yes ☒ No ☐ Type Vermin-Proof (Wms.)

7. Pitless Adapter Installed? Yes ☐ No ☐

Manufacturer ☐ Model Number ☐

How attached to casing? ☐

8. Well Disinfected? Yes ☒ No ☐

9. Pump and Equipment Disinfected? Yes ☐ No ☐

10. Pressure Tank Size ☐ gal. Type ☐
Location ☐

11. Water Sample Submitted? Yes ☐ No ☒

REMARKS:

County # 26981

P-181660

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner John Deyound Well No. 1

Address Lot #3; Lemont Highway Rd.

Driller Charles Fykes License No. 23

11. Permit No. 117765 Date 5-10-85

12. Water from Limestone 13. County Cook

at depth 8 to 145 ft. Sec. 15.1a

14. Screen: Diam. ☐ in. Twp. 37N

Length: ☐ ft. Slot ☐ Rge. 11E

Elev. ☐

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5"	A-53 15 lbs.	0	40

SHOW
LOCATION IN
SECTION PLAT

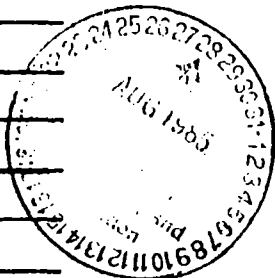
Lot #3
SE SE SE

16. Size Hole below casing: 5 in.
17. Static level 20 ft. below casing top which is +1 ft.
above ground level. Pumping level 50 ft. when pumping at 10
gpm for 1 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil	2'	2'
Clay	6'	8'
Limestone	137'	145'

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Charles Fykes DATE Aug. 26, 1985



White
Ill. Dept. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

INSTRUCT TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug ☐ Bored ☐ Hole Diam. 5 in. Depth 70 ft.
Curb material ☐ Buried Slab: Yes ☐ No ☐
b. Driven ☐ Drive Pipe Diam. 5 in. Depth 40 ft.
c. Drilled ☒ Finished in Drift ☐ In Rock ☒
Tubular ☐ Gravel Packed ☐
d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
CEMENT	4'	40'

2. Distance to Nearest:

Building 20 Ft. Seepage Tile Field 75'
Cess Pool ☐ Sewer (non Cast Iron) ☐
Privy ☐ Sewer (Cast Iron) ☐
Septic Tank 50' Barnyard ☐
Leaching Pit ☐ Manure Pile ☐

3. Is water from this well to be used for human consumption?

Yes ☒ No ☐

4. Date well completed 7-28-71

5. Permanent Pump Installed? Yes ☐ No ☒

Manufacturer ☐ Type ☐
Capacity ☐ gpm. Depth of setting ☐ ft.

6. Well Top Sealed? Yes ☒ No ☐

7. Pitless Adaptor Installed? Yes ☐ No ☒

8. Well Disinfected? Yes ☒ No ☐

9. Water Sample Submitted? Yes ☐ No ☒

REMARKS:

IDPH 4.065
10/68

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner HILDA KIRK Well No. 1
Address 117th & ARCHER - LEMONT
Driller LOCKPORT WELL & PUMP License No. 180
11. Permit No. 13725 Date 7-28-71
12. Water from LIMESTONE Formation at depth 40 to 70 ft.
13. County COOK
14. Screen: Diam. ☐ in. Sec. 14.28
Length: ☐ ft. Slot ☐ Rge. 11E
Elev. ☐

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5"	A-52 15lbs	0'	40'

SHOW LOCATION IN SECTION PLAT
NW SE NE

16. Size Hole below casing: 5 in.
17. Static level 45 ft. below casing top which is 41 ft. above ground level. Pumping level 45 ft. when pumping at 10 gpm for 1 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
TOP SOIL	1'	1'
GRAVEL	19'	20'
LIME	35'	55'
SHALE	1'	56'
LIME	14'	70'

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Charles Ayres DATE 7-29-71

#1
Alexander Chem Co - subsidiary to
North American Can Corp

Now CALLED

POWELL DUFFRYN TERMINALS, IN

December 18, 1951

Mr. A. Maloy
Alexander Chemical Company
3604 S. Morgan Street
Chicago, Illinois

Dear Mr. Maloy:

We are enclosing copy of Well Test Report for
Alexander Chemical Company Sag Bridge Plant, Cook County
prepared by our Field Engineer, Mr. J. S. Randall.

Very truly yours
STATE WATER SURVEY DIVISION

Jack Erdin, Engineering Asst't.

JA/CH

Encl.

c.c. Henry Boysen;
J. S. Randall

Alexander Chem Co
subsidiary to
North American Car Corp
Well #1

Now known as
Powell Supply Terminals, Inc.

December 18, 1951

**WELL TEST REPORT FOR
ALEXANDER CHEMICAL COMPANY
SAG BRINE PLANT - COOK COUNTY
By J. E. Randall**

A well was constructed for the Alexander Chemical Co. (Sterne & Miley owners) by the Henry Boysen and Son, Well Drilling Company, at Libertyville, Illinois in December 1951. The well is located in Cook County south of the Sanitary Canal and the C. N. & O. Ry. at a point approximately 250 feet east and 1050 feet north of the southwest corner of Section 14, T. 37 N., R. 18 E.

The well is 191 feet deep and 10 inches in diameter at the bottom. The casing is 13 1/4 inches in diameter and extends from a point 3 feet above ground surface to a depth of 10 feet. Also a casing 10 inches in diameter extending from a point 3 feet above ground surface to a depth of 27 feet. The annular space between the 13 1/4-inch and the 10-inch casing has been filled with concrete. From a depth of 27 feet to the bottom of the well at 191 feet the hole is uncased and is 10 inches in diameter.

The driller's log of the well is as follows:

<u>Material</u>	<u>From</u>	<u>To</u>	<u>Thickness</u>
Gravel and boulders	0	10	10
Water level 5'			
Grey limestone	10	20	10
27' of 10" casing set in and cemented - Dry hole to 35'			
Grey limestone	20	35	15
Recovered water at 35 to 40'			
White limestone harder	35	40	5
White limestone hard	40	140	100
Grey limestone softer	140	191	51

A short pumping test was run on December 10, 1951 by representatives of the Contractor and the State Water Survey. The pump was a belt-driven turbine pump with 100 feet of 4-inch column pipe; 7 stages, 5 3/4 inch O.D. bowl section 7 feet in length with no suction pipe. The airline was 100 feet long. The water was measured through a 3 3/4" and a 2 3/4" orifice plate, the property of the drilling contractor. The depth to water was determined by an airline gage the property of the State Water Survey.

The well produced 126 gpm. with a maximum drawdown of 91 feet and a specific capacity of 1.38 gallons of water per foot of drawdown and 101 gpm. with a drawdown of 63 feet or a specific capacity of 2.35; and 79 gallons per minute with a drawdown of 24 feet or a specific capacity of 3.29. The non-pumping depth to water was 7 feet.

A copy of the test data sheet is attached to this report.

Well #3 Cook 14-37N-11E

ALABAMA GEOLOGICAL SURVEY, URBANA			
Depth	Strata	Feet	Feet
	Fill	0	10
	Broken lim.	10	100
	Limestone	100	200
	Shale	200	250
	Limestone	250	300
	Shale	300	350
	Limestone	350	400
	Shale	400	450
	Limestone	450	500
	Shale	500	550
	Limestone	550	600
	Shale	600	650
	Limestone	650	700
	Shale	700	750
	Limestone	750	800
	Shale	800	850
	Limestone	850	900
	Shale	900	950
	Limestone	950	1000
	Shale	1000	1050
	Limestone	1050	1100
	Shale	1100	1150
	Limestone	1150	1200
	Shale	1200	1250
	Limestone	1250	1300
	Shale	1300	1350
	Limestone	1350	1400
	Shale	1400	1450
	Limestone	1450	1500
	Shale	1500	1550
	Limestone	1550	1600
	Shale	1600	1650
	Limestone	1650	1700
	Shale	1700	1750
	Limestone	1750	1800
	Shale	1800	1850
	Limestone	1850	1900
	Shale	1900	1950
	Limestone	1950	2000
	Shale	2000	2050
	Limestone	2050	2100
	Shale	2100	2150
	Limestone	2150	2200
	Shale	2200	2250
	Limestone	2250	2300
	Shale	2300	2350
	Limestone	2350	2400
	Shale	2400	2450
	Limestone	2450	2500
	Shale	2500	2550
	Limestone	2550	2600
	Shale	2600	2650
	Limestone	2650	2700
	Shale	2700	2750
	Limestone	2750	2800
	Shale	2800	2850
	Limestone	2850	2900
	Shale	2900	2950
	Limestone	2950	3000
	Shale	3000	3050
	Limestone	3050	3100
	Shale	3100	3150
	Limestone	3150	3200
	Shale	3200	3250
	Limestone	3250	3300
	Shale	3300	3350
	Limestone	3350	3400
	Shale	3400	3450
	Limestone	3450	3500
	Shale	3500	3550
	Limestone	3550	3600
	Shale	3600	3650
	Limestone	3650	3700
	Shale	3700	3750
	Limestone	3750	3800
	Shale	3800	3850
	Limestone	3850	3900
	Shale	3900	3950
	Limestone	3950	4000
	Shale	4000	4050
	Limestone	4050	4100
	Shale	4100	4150
	Limestone	4150	4200
	Shale	4200	4250
	Limestone	4250	4300
	Shale	4300	4350
	Limestone	4350	4400
	Shale	4400	4450
	Limestone	4450	4500
	Shale	4500	4550
	Limestone	4550	4600
	Shale	4600	4650
	Limestone	4650	4700
	Shale	4700	4750
	Limestone	4750	4800
	Shale	4800	4850
	Limestone	4850	4900
	Shale	4900	4950
	Limestone	4950	5000
	Shale	5000	5050
	Limestone	5050	5100
	Shale	5100	5150
	Limestone	5150	5200
	Shale	5200	5250
	Limestone	5250	5300
	Shale	5300	5350
	Limestone	5350	5400
	Shale	5400	5450
	Limestone	5450	5500
	Shale	5500	5550
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	Shale	5900	5950
	Limestone	5950	6000
	Shale	6000	6050
	Limestone	6050	6100
	Shale	6100	6150
	Limestone	6150	6200
	Shale	6200	6250
	Limestone	6250	6300
	Shale	6300	6350
	Limestone	6350	6400
	Shale	6400	6450
	Limestone	6450	6500
	Shale	6500	6550
	Limestone	6550	6600
	Shale	6600	6650
	Limestone	6650	6700
	Shale	6700	6750
	Limestone	6750	6800
	Shale	6800	6850
	Limestone	6850	6900
	Shale	6900	6950
	Limestone	6950	7000
	Shale	7000	7050
	Limestone	7050	7100
	Shale	7100	7150
	Limestone	7150	7200
	Shale	7200	7250
	Limestone	7250	7300
	Shale	7300	7350
	Limestone	7350	7400
	Shale	7400	7450
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	Shale	7600	7650
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	Shale	7700	7750
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	Shale	7800	7850
	Limestone	7850	7900
	Shale	7900	7950
	Limestone	7950	8000
	Shale	8000	8050
	Limestone	8050	8100
	Shale	8100	8150
	Limestone	8150	8200
	Shale	8200	8250
	Limestone	8250	8300
	Shale	8300	8350
	Limestone	8350	8400
	Shale	8400	8450
	Limestone	8450	8500
	Shale	8500	8550
	Limestone	8550	8600
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	Shale	8700	8750
	Limestone	8750	8800
	Shale	8800	8850
	Limestone	8850	8900
	Shale	8900	8950
	Limestone	8950	9000
	Shale	9000	9050
	Limestone	9050	9100
	Shale	9100	9150
	Limestone	9150	9200
	Shale	9200	9250
	Limestone	9250	9300
	Shale	9300	9350
	Limestone	9350	9400
	Shale	9400	9450
	Limestone	9450	9500
	Shale	9500	9550
	Limestone	9550	9600
	Shale	9600	9650
	Limestone	9650	9700
	Shale	9700	9750
	Limestone	9750	9800
	Shale	9800	9850
	Limestone	9850	9900
	Shale	9900	9950
	Limestone	9950	10000

1000
900
800
700
600
500
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300
200
100
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1000
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500
400
300
200
100
0

540

March 24, 1980

WELL PRODUCTION TEST
NORTH AMERICAN CAR CORP., WELL NO. 3
COOK COUNTY

By

Layne-Western Co.

Well Owner: Powell Duffryn Terminals Inc.
Well Location: North American Car Corp.
1700 ft. N and 700 ft E of the SW corner
of Section 14, T. 37N, R. 11E.
Date Well Completed: August 1960
Date of Production Test: April 30, 1965 and September 28, 1979
Length of Production Test: 2 hr on 4-30-65 and 3.4 hr on September
28, 1979.
Aquifer: Sandstone

PUMPED WELL DATA

Well No.: 3
Depth: 1501 ft (measured to be 1464 ft deep in
1969 and reported to be 1444 ft deep
in 1979)
Drilling Contractor: Layne-Western Co., Aurora
Hole Record: 19.2 in. 0 to 392 ft., 15.2 in. 392 to
1501 ft.
Casing Record: 20 in. 0-20 ft; 16 in. 0-392 ft (cemented
in)
Ground Elevation at Well: 585 ft.
Nonpumping Water Level: 480 ft. on April 30, 1965 and 580 ft. on
September 28, 1979.
Measuring Equipment: 520 ft. airline and 6 x 5 in. orifice on
April 30, 1965; 805 ft airline and 8 x 6
in. orifice on September 28, 1979.
Pump and Power: 12-in., 11-stage Layne pump on April 30,
1965; 17-stage Byron Jackson submersible
pump set at 800 ft. with 200-hp motor on
September 28, 1979.

Remarks:

Upon completion, well shot as follows: 50 lb. at 1470 ft, 50 lb at 1445
ft., 50 lb at 1425 ft, 100 lb at 1375 ft, and 100 lb. at 1325 ft.

P-273711

DRILLERS LOG
Well No. 3

<u>Formation</u>	<u>From</u>	<u>To</u>
Fill	0	3
Broken Lime	3	10
Limestone	10	198
Shale	198	259
Limestone	259	295
Shale	295	368
Limestone	368	705
Sandstone	705	804
Shale	804	806
Sandstone	806	810
Limestone	810	1208
Sandstone with Shale breaks	1208	1218
Limestone with traces of shale	1218	1231
Limestone	1231	1239
Sandy lime with traces of shale	1239	1274
Limestone	1274	1300
Sandstone	1300	1305
Sandstone and lime	1305	1312
Sandstone	1312	1493
Limestone	1493	1501



Page 1

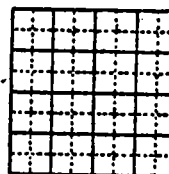
ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Driller's log:			
Silt, some clay, trace sand & roots, dk brown, loose fill		0	2
Clay, some silt, trace sand & misc. materials, dk brown & dk gray hard fill		2	4
Peat, dk brown, trace shells, loose highly organic		4	9
Clay & silt, trace sand, fibres & shells, gray, soft mod. organ.		9	13.5
Silt, trace fine sand, gray, loose, wet		13.5	16
Sand, some gravel, trace silt, brown & gray		16	20
Limestone bedrock, white, solid, stylolitic with occasional small solution cavities above 50'		20	90

COMPANY Williams Bros. Co.
FARM Northern Ill. Gas Co.
DATE DRILLED 10/5/62
AUTHORITY Soil Testing Serv.

NO. 1
COUNTY NO.

ELEVATION
LOCATION $\frac{1}{2}$ mile W of 83 & San. & Ship Canal
COUNTY DuPage



T37N R11E -15

P-176182



Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Driller's log:			
Silt, some clay & sand, trace roots & misc. material, light brown brown, and dk brown loose to med. dense, dry fill		0	4
Gravel, some sand & silt, brown & lt brown with a boulder 6'6" - 8'6", very dense, wet below 12'		4	18
Silt, some clay & sand with thin sand seams, gray, dense		18	25
Limestone bedrock, white & solid, stolicitic occasional small solution pockets above 50'		25	90

COMPANY Williams Bros Co.

FARM Northern Ill. Gas Co.

NO. 2

DATE DRILLED 9/28/62

COUNTY NO.

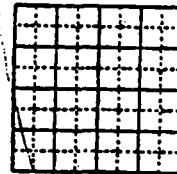
AUTHORITY Soil Testing Serv.

ELEVATION

LOCATION $\frac{1}{2}$ mile W of 83 & San & Ship Canal

COUNTY DuPage

T37NR11B-15



P-176184

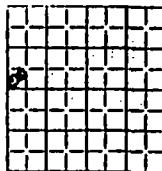
Strata	Thickness		Depth	
	Feet	In.	Feet	In.
Boring No. 1 SW., SW., NW., sec. 14, T. 37N., R. 11E. Elevation 582.5' MSL <i>14.8e</i>	COUNTY No. <i>10</i>			
Top soil	2	0	2	0
Clay	13	0	15	0
Sand	6	6	21	6
Limestone	2	0	23	6
Core # 1869				
Boring No. 2 SW., SW., NW., sec. 14, T. 37N., R. 11E. Elevation 583.0 MSL <i>14.8e2</i>	COUNTY No. <i>11</i>			
Top soil	2	0	2	0
Clay	12	0	14	0
Sand	8	6	22	6
Limestone	1	6	24	0
Core # 1870				
Reference set of drawings 4040 p5-25 in map files.				
Sag Bridge quadrangle				

COMPANY Corps of Engineers
FARM Calumet-Sag Canal
DATE DRILLED Prior to 10-1-46
AUTHORITY Corps of Engineers
ELEVATION

NO. 1 & 2

NO.

COUNTY NO.



location: SW., SW., NW.

-DuPage - 37-11-14.8e

37N 11E 14.8E

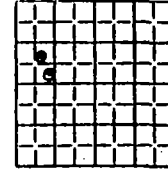
Strata	Thickness		Depth	
	Feet	In.	Feet	In.
Boring No. 3 NE., SW., NW., sec. 14, T. 37N., R. 11E. Elevation 583.5 MSL <i>Sup 37-11-14.8F</i>	COUNTY No. <i>12</i>			
Top soil	2	0	2	0
Clay	10	0	12	0
Gravel	2	0	14	0
Sand	1	0	15	0
Clay	3	0	23	0
Limestone	1	6	24	6
Core # 1871				
Boring No. 4 SE., SW., NW., sec. 14, T. 37N., R. 11E. Elevation 583.5 MSL <i>Sup 37-11-14.7e</i>	COUNTY No. <i>13</i>			
Top soil	2	0	2	0
Yellow clay and gravel	6	6	8	6
Sand	2	0	10	6
Clay and gravel	7	0	17	6
Limestone	3	0	20	6
Sand	1	0	21	6
Limestone boulder	1	0	22	6
Sand	1	0	23	6
Clay and gravel	1	0	24	6
Core # 1872				
Reference set of drawings 4040 p5-25 in map files				
Sag Bridge quadrangle				

COMPANY Corps of Engineers
FARM Calumet-Sag Canal
DATE DRILLED Prior to 10-1-46
AUTHORITY Corps of Engineers
ELEVATION

NO. 364

NO.

COUNTY NO.



Cook

DuPage

37-11-14

14-37N-1

* per 142 of 4/wells 1-4 of 7

#1
P-176174
#2
P-176175
#3
P-176176
#4
P-176177
#13
P-176174
#12
P-176175
#11
P-176176
#10
P-176177

Strata	Thickness		Depth	
	Feet	In.	Feet	In.
Boring No. 5 & NW., SE., NW., sec. 14, T. 37N. R. 11 E. Elevation 582.0 MSL 14.6F				
COUNTY No. 14....				
Top soil	2	0	2	0
Clay and gravel	12	0	14	0
Limestone	2	9	16	9
Sand	1	9	18	6
Limestone	1	6	20	0
Sand	1	0	21	0
Limestone	1	6	22	6
Core # 1873				
Boring No. 6				
NW., SE., NW., sec. 14, T. 37N.,				
R. 11E.				
Elevation 582.5 MSL 14.6F ₂				
COUNTY No. 15....				
Top soil	1	0	1	0
Clay	8	0	9	0
Clay and gravel	13	6	22	6
Limestone	1	0	23	6
Reference set of drawings 4040 p5-25 in map files				
Sag Bridge quadrangle				

COMPANY Corps of Engineers

FARM Calumet-Sag Canal

DATE DRILLED Prior to 10-1-46

AUTHORITY Corps of Engineers

ELEVATION

Location: NW., SE., NW.

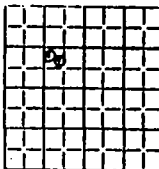
DuPage

-37-11-14.6F Card 14-37N-11E

NO.

NO. 5 & 6

COUNTY NO.



Strata	Thickness		Depth	
	Feet	In.	Feet	In.
Boring No. 7 NW., SE., NW., sec. 14, T. 37N., R. 11E Elevation 584.5 MSL				
Fill Limestone Clay and sand Limestone Core # 1874				
	21	6	21	6
	1	0	22	6
	1	0	23	6
	2	6	26	0
Reference set of drawings 4040 p5-25 ²⁵ in map files				
Sag Bridge quadrangle				

COMPANY Corps of Engineers

FARM Calumet-Sag Canal

DATE DRILLED Prior to 10-1-46

AUTHORITY Corps of Engineers.

ELEVATION 584.5 MSL

Location: NW., SE., NW.

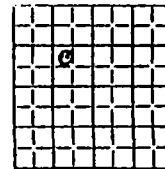
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-37-11-14.6F₃ Card

NO.

NO. 7

COUNTY NO. 16



14-37N-11E

Page 34 4 of 4 / Wells 5-7 of

#5
P-176178
#6
P-176179
#7
P-176180

#S-P-176178

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug ☐ Bored ☐ Hole Diam. 8" in. Depth 920 ft.
Curb material ☐ Buried Slab: Yes ☐ No ☐
b. Driven ☐ Drive Pipe Diam. 8 in. Depth 60 ft.
c. Drilled ☒ Finished in Drift ☐ In Rock ☒
Tubular ☐ Gravel Packed ☐
d. Grout: ☐

(KIND)	FROM (Ft.)	TO (Ft.)
Cement	-3	60

2. Distance to Nearest:

- Building ☐ Ft. Seepage Tile Field ☐
Cess Pool ☐ Sewer (non Cast iron) ☐
Privy ☐ Sewer (Cast iron) ☐
Septic Tank ☐ Barnyard ☐
Leaching Pit ☐ Manure Pile ☐

3. Is water from this well to be used for human consumption?

Yes ☐ No ☒

4. Date well completed 3-21-72

5. Permanent Pump Installed? Yes ☐ No ☐

Manufacturer ☐ Type ☐
Capacity ☐ gpm. Depth of setting ☐ ft.

6. Well Top Sealed? Yes ☐ No ☐

7. Pitless Adaptor Installed? Yes ☐ No ☐

8. Well Disinfected? Yes ☐ No ☐

9. Water Sample Submitted? Yes ☐ No ☐

REMARKS:

Chicago West Deep Well.

IDPH 4.065

10/68

x Copies 15/BB/RG

P-273

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Dundee Cement Well No. 2

Address ☐

Driller LOCKPORT WELL & PUMP License No. 180

11. Permit No. 16178 Date 3-21-72

12. Water from ST. PETER SANDSTONE County COOK

at depth 739 to 860 ft. Sec. 12.7b

14. Screen: Diam. ☐ in.

Length: ☐ ft. Slot ☐

Twp. 37-N

Rge. 11-E

Elev. ☐

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
8"	CA/V. A-53-28.55	+1'	60'
6"	A-53-18.97	204	418

SHOW LOCATION IN SECTION PLAT
NE SW SW

16. Size Hole below casing: 6 in.

17. Static level 45 ft. below casing top which is +1 ft.

above ground level. Pumping level ☐ ft. when pumping at ☐ gpm for ☐ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Gravel	47	47
Limestone	163	210
Shale	200	410
Limestone	329	739
ST. PETER SANDSTONE	121	860
Limestone	60	920

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Charles Hughes DATE 4-5-72

Legal Description of Dundee Cement Company's property, Cook County, Illinois.

Parcel H.

That part of the Southeast Quarter of Section 11 and the Southwest Quarter of Section 12, Township 37 North, Range 11 East of the Third Principal Meridian, Cook County, Illinois, also being a part of Lots 193 and 190 of Sanitary District Trustee's Subdivision of Right of Way from North and South Center Line of Section 30, Township 39 North, Range 14 East of the Third Principal Meridian to Will County Line described as follows: Commencing the intersection of the Northwestern Line of said Lot 193 and the Easterly Right of Way Line of Illinois State Highway Route 83 (S.B.I. Route 54) as dedicated for public highway June 11, 1937 and recorded as Document No. 12010932; thence Northeasterly along the Northwestern line of said Lot 193 a distance of 1199.75 feet for a place of beginning; thence Northeasterly along the Northwestern line of said Lots 193 and 190 a distance of 1500.0 feet; thence Southeasterly $90^{\circ}00'00''$ to the right of the last described course, extended, a distance of 7.0 feet; thence Southwesterly along a line parallel with and 7.0 feet Southeasterly of the Northwestern line of said Lot 190, a distance of 700.0 feet; thence Southeasterly $90^{\circ}00'00''$ to the left of the last described course extended, a distance of 277 feet; to the Southeasterly line of said Lot 190; thence Southwesterly along the Southeasterly line of said Lots 190 and 193 a distance of 800 feet; to the intersection of a line drawn from the point of beginning, at an angle of $90^{\circ}00'00''$ to the Northwestern line of said Lot 193; thence Northwesternly along said line perpendicular to the Northwestern line of said Lot 193 a distance of 284 feet; to the place of beginning.

11-11-11

11-11-11

11-11-11

11-11-11

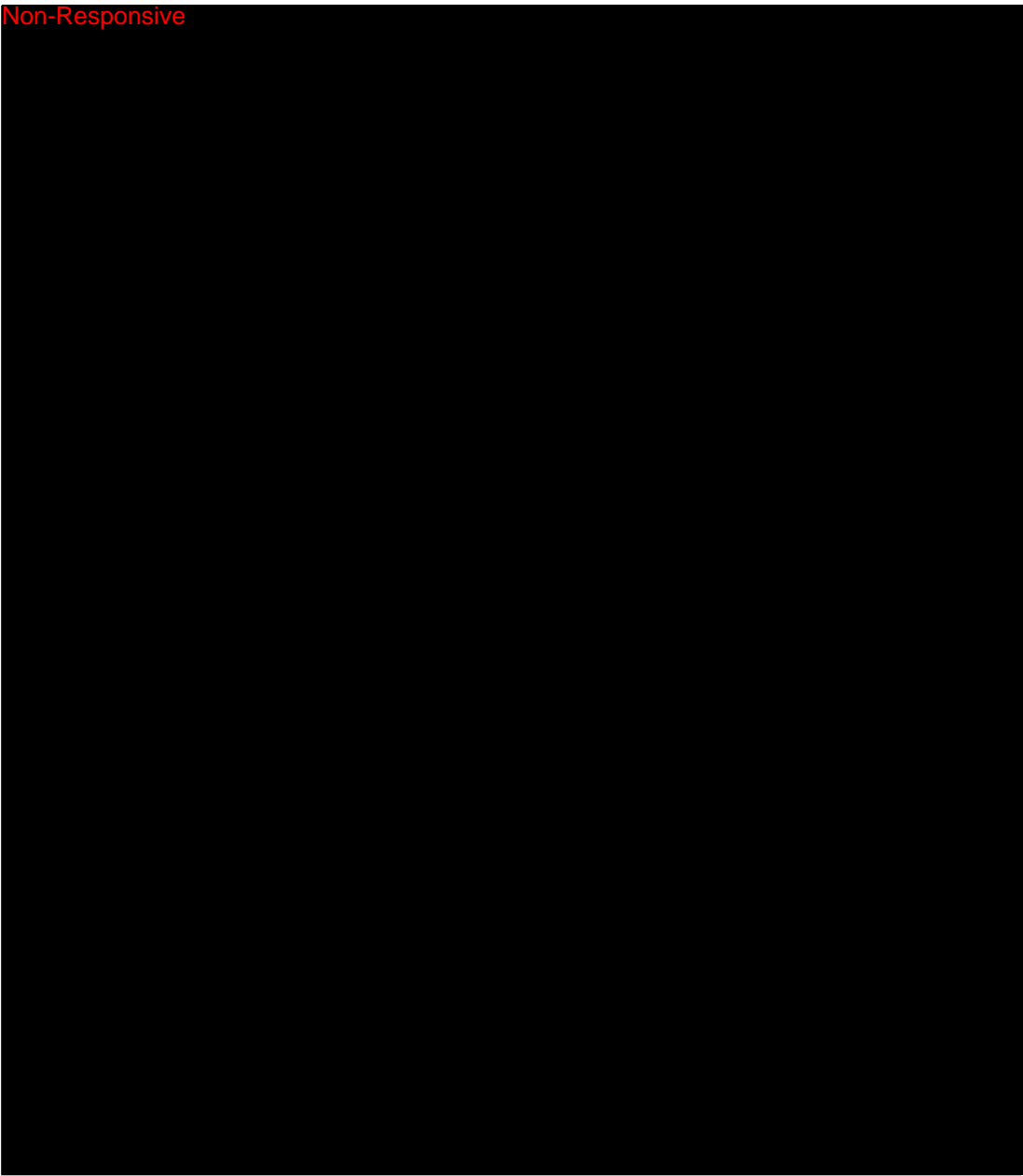
**Reference
Number 9**

POWELL DUFFRYN TERMINAL
ILD 980823835
L0311625023

POTABLE WELLS IDENTIFIED WITHIN FOUR MILES OF POWELL DUFFRYN TERMINALS, INC,

<u>WELL</u>	<u>LOCATION FROM SITE</u>	<u>DEPTH</u>	<u>OTHER</u>
-------------	---------------------------	--------------	--------------

Non-Responsive



continued:

Non-Responsive



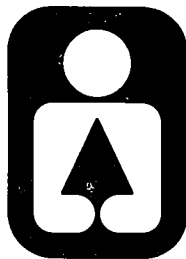
NON-POTABLE WELLS IDENTIFIED WITHIN FOUR MILES OF POWELL DUFFRYN:

Non-Responsive



**Reference
Number 10**

Illinois



Department of Conservation

life and land together

Brent Manning
Director

John W. Comerio
Deputy Director

Bruce F. Clay
Assistant Director

LINCOLN TOWER PLAZA • 524 SOUTH SECOND STREET • SPRINGFIELD 62701-1787
CHICAGO OFFICE • ROOM 4-300 • 100 WEST RANDOLPH 60601

August 4, 1992

Mr. John Sherrill
IEPA - LAND
P.O. Box 19276
Springfield, IL 62794-9276

Re: ILD #063698971

Dear Mr. Sherrill:

Per your July 23, 1992 request the Department has completed its review of the above noted CERCLIS site northeast of Joliet.

Portions of two natural areas are within 0.5 mile of this project site. Those are the Lemont East Geological Area and Waterfall Glen Forest Preserve. No Illinois listed threatened (T) and endangered (E) species are known from the geological area, but several have been recorded within the 1185-acre Waterfall Glen Preserve. Those include river otter (E) (Lutra canadensis), Hine's emerald dragonfly (E) (Somatochlora hineana), Awned sedge (T) (Carex atherodes) Crawe sedge (T) (Carex crawei), and small white lady's-slipper (E) (Cypripedium candidum). Hine's emerald dragonfly has been proposed for federal listing (sensitive areas form attached).

There are no true aquatic endangered or threatened species known along the 15-mile water path, but there are many listed species within natural areas and nature preserves associated with the DesPlaines River. These areas and the listed species that occur at each of them are listed below.

Two additional listed plants occur along the water pathway. Awned sedge is found in Section 24, T37N, R10E and slender sandwort (T) (Arenaria patula) is found in Section 25, T37N, R10E. These occurrences are across the river from the Keepataw Forest Preserve, northeast of Romeoville.

Black Partridge Woods Nature Preserve

Spotted Turtle (E)
Slender Sandwort
Leafy Prairie-clover (E)*
Small White Lady's-slipper

Clemmys guttata
Arenaria patula
Dalea foliosa
Cypripedium candidum

RECEIVED
AUG 07 1992
IEPA/DLPC

Lockport Prairie East Natural Area

Leafy Prairie-clover Dalea foliosa

Lockport Prairie Nature Preserve

Pied-billed Grebe (E)	Podilymbus podiceps
Least Bittern (E)	Ixobrychus exilis
Common Moorhen (T)	Gallinula chloropus
Spotted Turtle (E)	Clemmys guttata
Hine's Emerald Dragonfly	Somatochlora hineana
Slender Sandwort	Arenaria patula

Lockport Prairie Nature Preserve (cont'd)

Leafy Prairie-clover*	Dalea foliosa
Crawe Sedge	Carex crawei

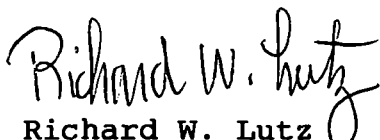
Romeoville Prairie Nature Preserve

Spotted Turtle	Clemmys guttata
Hine's Emerald Dragonfly	Somatochlora hineana
Leafy Prairie-clover (E)*	Dalea foliosa
Earleaf Foxglove (T)	Tomanthera auriculata
Crawe Sedge	Carex crawei
Slender Bog Arrow-grass	Triglochin palustris

* also federally endangered

Thank you for the opportunity to comment.

Sincerely,



Richard W. Lutz
Acting Supervisor
Division of Impact Analysis

RWL:ts

Att: sensitive areas form

DEPARTMENT OF CONSERVATION IDENTIFICATION OF
ENVIRONMENTAL SENSITIVE AREAS

ILD# 063698971

TARGET DISTANCE CATEGORIES

SENSITIVE ENVIRONMENTS	On-site	0-1/4 mile	1/4-1/2 mile	stream mileage
I. Critical habitat for Federally designated or proposed endangered or threatened species	—	—	—	—
II. Habitat known to be used by Federally designated or proposed endangered or threatened species	—	—	*	*
III. State wildlife refuge				
IV. Spawning areas critical for the maintenance of fish/shellfish species within a river system	—	—	—	—
V. Terrestrial areas utilized by large or dense aggregations of vertebrate animals for breeding	—	—	—	—
VI. Habitat known to be used by State designated or threatened species	—	—	*	see text
VII. Habitat known to be used by a species under review as to its Federal endangered or threatened status	—	—	*	—
VIII. State lands designated for wildlife or game management	—	—	—	—
IX. State designated natural area	—	—	*	see text
X. Particular areas, relatively small in size, important to the maintenance of unique biotic communities	—	—	*	*

If any of the sensitive areas identified above exist within the designated target distance limits, please post an asterisk (*) in the appropriate column.



217/782-2113

OPERATING PERMIT

PERMITTEE

Powell Duffryn Terminals, Inc.
Attn: James A. Durham
Main Street NE of Parker Road
Lemont, Illinois 60439

**Reference
Number 11**

Application No.: 83010031

I.D. No.: 031806AAG

Applicant's Designation: TK 8 & 199

Date Received: June 8, 1992

Subject: Storage Tanks 8 & 199 w/Loading Racks

Date Issued: July 17, 1992

Expiration Date: July 13, 1995

Location: Main Street NE of Parker Road, Lemont

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of two storage tanks and associated loading racks, (tank #8 420,000 gallons, tank #199 210,000 gallons), for storage of Xylene and Methylene Chloride respectively as described in the above-referenced application. This Permit is subject to standard conditions attached hereto:

Please note that a revised permit will be required if any materials other than Xylene and Methylene Chloride are stored.

If you have any questions on this, please call Michael Costello at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:MSC:ds:0229N/69

MSX
cc: Region 1



STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

**STANDARD CONDITIONS
FOR
OPERATING PERMITS**

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special permit condition(s).

1. The issuance of this permit does not release the permittee from compliance with state and federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or with applicable local laws, ordinances and regulations.
2. The Agency has issued this permit based upon the information submitted by the permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under 35 Ill. Adm. Code 201.207.
3.
 - a. The permittee shall not authorize, cause, direct or allow any modification, as defined in 35 Ill. Adm. Code 201.102, of equipment, operations or practices which are reflected in the permit application as submitted unless a new application or request for revision of the existing permit is filed with the Agency and unless a new permit or revision of the existing permit(s) is issued for such modification.
 - b. This permit only covers emission sources and control equipment while physically present at the indicated plant location(s). Unless the permit specifically provides for equipment relocation, this permit is void for an item of equipment on the day it is removed from the permitted location(s) or if all equipment is removed, notwithstanding the expiration date specified on the permit.
4. The permittee shall allow any duly authorized agent of the Agency, upon the presentation of credentials, at reasonable times:
 - a. to enter the permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
 - b. to have access to and to copy any records required to be kept under the terms and conditions of this permit,
 - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
 - d. to obtain and remove samples of any discharge or emission of pollutants, and
 - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring or recording any activity, discharge or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are located,
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the facilities,

CALCULATION SHEET

Facility Powell Duffryn Terminals

I.D. 031 806 AAG

Anal. Eng. MSC Date 06 11 92

PN 03 01 0031

Rev. Eng. _____ Date _____

Date Rec. 06 08 92

No Flays Etc.

Renewal of Simple Minor with request to add
2 loading racks previously left off the permit.

EQUIPMENT:

Tank 199 210,000 Fixed roof tank for Methylene Chloride
Tank 8 420,000 " " " " Xylene

AP-42 p. 4.3-5 Breathing Losses.
4.3-8 Working Losses

TANK 8 Xylene

P. 1434 psi C=1 H=20 Kc=1 Mu=106.17 N=1.19
PA 141.7 psi D=42.5 Fp=1.6 ΔT=50 V=420,000 Kn=1

LB = 4357.9 lb/yr → 2.18 T/yr

LW = 246.3 lb/yr → 0.12 T/yr

2.30 T/yr → 0.53 lb/hr

TANK 199 Methylene Chloride

P. 8.47 psi C=1 D=36 Fp=1.6 Mu=81.94 N=2.38
PA 141.7 psi Kc=1 H=20 ΔT=50 V=210,000 Kn=1

LB = 60732.6 lb/yr → 36.3 T/yr

LW = 8629.3 lb/yr → 4.31 T/yr

34.68 T/yr → 7.94 lb/hr

Check Toxy.

CALCULATION SHEET

Facility <u>Powell D. Hwy Terminal</u> JRCF Anal. Eng. <u>MSC</u> Date <u>07 13 92</u> Rev. Eng. _____ Date _____	I.D. <u>03L 806 AAG</u> PN <u>83 01 0031</u> Date Rec. <u>06 08 92</u>
-------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------

The company supplied emissions calculations for the two tanks and their respective Loading Docks. They used the same AP42 formulas (except tank 199 which now has a interfloating Roof) with slightly different variables. Numbers appear accurate. Tank #199 Loadout Methylene Chloride may pose a problem at 120 ^{lb}/hr.

Tank #8 Xylene $L_w + L_B = 0.395 \text{ }^{lb}/hr \rightarrow 1.73 \text{ T/yr}$
 Loadout $7.86 \text{ }^{lb}/hr \rightarrow 0.37 \text{ T/yr}$
 \uparrow from 168,000 gal/yr

Tank #199 Methylene Chloride $L_w + L_B = 3.8 \text{ }^{lb}/hr \rightarrow 16.59 \text{ T/yr}$
 Loadout $120.4 \text{ }^{lb}/hr \rightarrow 3.93 \text{ T/yr}$
 \uparrow from 1,176,000 gal/yr

Hazard Rating 9 - OK by Toxy

EIS updated

POWELL DUFFRYN TERMINALS INC.

Main Street NE of Parker Road
Post Office Box 727
Lemont, Illinois 60439-0727 U.S.A.
Terminal Division Telephone 708-257-6222
Packaging Division Telephone 708-257-3760
Fax 708-257-7135

July 8, 1992



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL - PERMIT SECTION
Mr. Mike Costello
2200 Churchill Road
Springfield, IL 62706

RECEIVED

JUL 10 1992

RE: Facility I.D. #031806AAG

EPA-DAPC-SPFLD.

Dear Sir:

The following is the information you requested from us concerning Air Permit Application #83010031 for Tanks #8 and #199 and their respective loading racks located within our facility.

TANK #8

Product: Xylene

Tank: Stack Height - 41' 6"
Conservation Vent - 6" Diameter
- Pressure Release: 1-1 1/2 oz./sq. in.
- Vacuum Release : 1/2 oz./sq. in.
Capacity - 424,000 Gallons
Dimensions - Dia. \div by 42' 6" Height - 40'

Rack: 4" Down Spout - With Submerged Fill

Emissions: (using AP 42, calculated @ 4 turns per year)
Rack - 0.367 Tons/Year
Tank - 0.346 Tons/Year

TANK #199

Product: Methylene Chloride

Tank: Stack Height - 41' 6"
Internal Floating Roof - Double Seal
Conservation Vent - 6" Diameter
- Pressure Release: 1-1 1/2 oz./sq. in.
- Vacuum Release : 1/2 oz./sq. in.
Capacity - 294,000 Gallons
Dimensions - Dia. 36' Height: 40'

Rack: 4" Down Spout - With Submerged Fill

Emissions: (using AP 42, calculated @ 4 turns per year)
Rack - 3.933 Tons/Year
Tank - 1.279 Tons/year

Your "User Friendly" Terminal

Mr. Costello, we have attached a facility Plot Plan that can be used for further reference of buildings located at the facility. Also attached are the emission calculations for your review. If you require any further information, please contact me by telephone at (708) 257-3960.

Yours truly,

A handwritten signature in cursive script that reads "James A. Durham". The signature is written in dark ink and is positioned above the printed name and title.

JAMES A. DURHAM
Compliance Manager

pkw/jad318

Attachments

TANK AIR EMISSION CALCULATION

ALCULATIONS FOR TANK

PRODUCT NAME :	XYLENE	8
W TANKULAR WEIGHT=	106.16	
VAPOR PRESSURE=	0.36 PSIA	
$= (P/(14.7-P))^{.68}$	0.080	
TANK DIAMETER=	42.5 FT	
=1/2 THE TANK HEIGHT=	20 FT	
MEAN ANNUAL DAILY		
TEMP DIFFERENCE	20 DEG F	
P=PAINT FACTOR=	1	
TANK DIAMETER COEFFICIENT=	0.75	
C=PRODUCT FACTOR=	1	
N=TURN OVER FACTOR		
LESS THAN 35 KN=	1	
TANK SIZE	424 *1000 GAL	
H=ANNUAL THROUGHPUT		
MAX. TH =	1698 *1000 GAL	
PRV CONS. VENT RELEASE SETTING	0.288 PSIA	

UNIT WITHOUT CONTROL CALCULATION

$$EQ : LB = 0.0226 * M * P' * D^{1.73} * H^{0.51} * T^{0.5} * FP * C * KC$$

UNCONTROL BREATHING LOSS = 1948.008 LB/YR = 0.22238 LB/HR

$$LW = 0.024 * M * P * KN * KC * TH$$

UNCONTROLLED WORKING LOSS = 1514.016 LB/YR = 0.17283 LB/HR

$$LT = LB + LW$$

TOTAL UNCONTROLLED LOSS= 3462.024 LB/YR = 0.39521 LB/HR

CONTROL WITH CONSERV VENT (PVRV)

$$A = PV/P * 100\% =$$

80.00 %

$$B = A * LT =$$

2769.610 LB/YR = 0.31617 LB/HR

$$TOTAL CONTROLLED LOSS = LT - B =$$

692.405 LB/YR = 0.07904 LB/HR

RACK NO: LOADING RACK FOR TANK 8
 PRODUCT NAME : XYLENE
 = VAPOR PRESSURE: 0.35 PSIA
 MW = MOLECULE WEIGHT: 106.16 GRAM
 = TEMPERATURE: 530 DEGREES R
 = SOLUTION FACTOR: 0.5
 MAX. ANNUAL THROUGHPUT: 1680000 GALLONS
 MAX. GALLONS LOADED / HOUR: 18000 GALLONS

LOADING LOSS (LL) IN LBS/HOUR EQUATION: $12.46 \times S \times P \times M / T$

LL $12.46 \times 0.5 \times$ 0.35 PSIA \times 106.16 GRAM / 530 DEGREES R = 0.4368 LBS/1000 GAL

MAX. EMISSION W/O CONTROL: 0.4368 LBS/1000 GAL \times 18000 GALLONS / HOUR / 1000 GALLONS = 7.8616 LBS / HOUR

0.436758 LBS/1000 GAL \times 1680000 GALLONS / YEAR / 1000 GALLONS = 733.7539 LBS / YEAR

EQUIPMENT WITH CONTROL :

CONTROL FACTOR : N/A

EMISSION WITH PRIMARY CONTROL :

0.00 LBS / HOUR \times $(1 -$ $0.002)$ = 0.0000 LBS / HOUR

EMISSION WITH SECONDARY CONTROL :

 N/A
 0.00 LBS / HOUR \times $(1 -$ $0.002)$ = 0.0000 LBS / HOUR

TANK AIR EMISSION CALCULATION

TANK #	199
PRODUCT NAME :	METHYLENE CHLORIDE
MOLECULAR WEIGHT=	84.94
P=VAPOR PRESSURE=	6.7000 PSIA
P' = (P/(14.7-P)) ^{0.68}	0.886
D=TANK DIAMETER=	36 FT
H=1/2 THE TANK HEIGHT=	20 FT
T=MEAN ANNUAL DAILY TEMP DIFFERENCE	20 DEG F
FP=PAINT FACTOR=	1
C=TANK DIAMETER COEFFICIENT=	1
KC=PRODUCT FACTOR=	1
KN=TURN OVER FACTOR IF LESS THAN 35 KN=	1
TANK SIZE	294 *1000 GAL
TH=ANNUAL THROUGHPUT =TANK SIZE * 4 =	1176 *1000 GAL
PVRV CONS. VENT RELEASE SETTING	0.288 PSIA

UNIT WITHOUT CONTROL CALCULATION

EQ : LB = 0.0226*M*P'*D ^{1.73} *H ^{0.51} *T ^{0.5} *FP*C*KC		
UNCONTROL BREATHING LOSS =	17270.066 LB/YR =	1.97147 LB/HR
LW = 0.024*M*P*KN*KC*TH		
UNCONTROLLED WORKING LOSS =	16062.222 LB/YR =	1.83359 LB/HR
LT = LB+LW		
TOTAL UNCONTROLLED LOSS=	33332.288 LB/YR =	3.80506 LB/HR

UNIT CONTROLLED WITH INTERNAL FLOATING ROOF

SEAL FACTOR=	1.6
V=WIND VELOCITY=	10
N=	0
FC=	1
NC=	1
C=CLINGAGE FACTOR	0.0015
F=DECK FITTING LOSS FACTOR=	150
WL=LIQUID DENSITY=	11.06 LBS/GAL
PS = (P/14.7)[1+(1-(P/14.7)) ^{0.5}] ²	0.1509392927
EQ=LR = KS*V ^N *PS*D ^M *MV*KC	
RIM SEAL LOSS=	738.477 LB/YR = 0.08430 LB/HR
LW = 0.943*[(TH*C*WL/D)*[1+(NC*FC/D)]]	
WITHDRAWAL LOSS=	12.167 LB/YR = 0.00139 LB/HR
LF = F*PS*MV*KC	
DECK FITTING LOSS=	1923.118 LB/YR = 0.21953 LB/HR
LT = LR+LW+LF	
TOTAL LOSS(INTERNAL FLOATING ROOF)	2673.761 LB/YR = 0.30522 LB/HR
A=PV/P*100%=	
	4.299 LB/YR = 0.00049 LB/HR
B=A*LT=	
	114.932 LB/YR = 0.01312 LB/HR
TOTAL CONTROLLED LOSS W/ CONS VENT= LT-B=	2558.829 LB/YR = 0.29210 LB/HR

NPDES Permit No. IL0005126

Illinois Environmental Protection Agency

Division of Water Pollution Control

2200 Churchhill Road

Springfield, Illinois 62706

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date: August 1, 1991

Issue Date:
Effective Date:

Name and Address of Permittee:

Facility Name and Address:

Powell Duffryn Terminals, Inc.
Post Office Box 727
Lemont, Illinois 60439

Powell Duffryn Terminals, Inc.
Main St. NE of Parker Road
Lemont, Illinois
Cook County

Discharge Number and Name:

Receiving Waters

001 Non-contact cooling water, boiler
blowdown, safety systems water and
stormwater

Illinois and Michigan Canal

In compliance with the provisions of the Illinois Environmental Protection Act, Subtitle C and/or Subtitle D Rules and Regulations of the Illinois Pollution Control Board, and the FIPCA, the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Thomas G. McSwigglin, P.E.
Manager, Permit Section
Division of Water Pollution Control

TGM:JS:rd/sp118F

Reference
Number 12

PROPOSED
Subject to Revision

WATER POLLUTION CONTROL Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVG.	DAILY MAX.	30 DAY AVG.	DAILY MAX.		
1. From the effective date of this permit until August 1, 1991, the effluent of the following discharge shall be monitored and limited at all times as follows:						
Outfall: 001						
Flow					Measure then Monitoring	
Temperature	See Special Condition 1				1/Month	Single Reading
pH	The pH shall remain within the range of 6.0-9.0 at all times				1/Month	Grab
Total Suspended Solids			15.0	30.0	1/Month	Composite
Fats, Oils and Grease			15.0	30.0	1/Month	Grab
Iron			2.0	4.0	1/Month	Composite
Chromium (Hexavalent)			0.1	0.2	1/Month	Composite
Copper					1/Month	Composite
Chlorine Residual				0.75	1/Month	Grab
Total Toxic Organics	See Special Condition 3				Quarterly	

Special Conditions

SPECIAL CONDITION 1. Discharge of wastewater from this facility must not violate the following thermal limitations at the edge of the mixing zone alone or in combination with other sources cause the receiving stream to 35, Chapter 1, Subtitle C, as amended:

- A. Maximum temperature rise above natural temperature must not exceed 50F (2.80C).
- B. Water temperature at representative locations in the main river shall not exceed the maximum limits in the following table during more than one (1) percent of the hours in the 12-month period ending with any locations exceed the maximum limits in the water temperature at such those portions of the river essentially similar to and following the same thermal regime as the temperatures of the main flow of the river.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0C	16	16	16	32	32	32	32	32	32	32	32	16
0F	60	60	60	90	90	90	90	90	90	90	90	60

SPECIAL CONDITION 2. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 3. Total toxic organics (TTO) shall be defined as the summation of all quantifiable values greater than 0.01 milligrams per liter for the toxic organics listed in Attachment A. In addition to reporting individual compounds comprising the TTO value, the discharge of organic compounds at levels which cause or may cause water quality violations is prohibited. The pollutants listed in Attachment A for TTO shall be monitored annually by one grab sample for volatile pollutants and a 24-hour composite sample for the other fractions. Sampling shall be performed on a normal production day while solvents are in use in the plant.

State of Illinois. The permit for the construction of the plant in the program, the Illinois EPA may modify this permit to include any other conditions for specific toxic organic pollutants, or to continue to modify the monitoring program as appropriate.

SPECIAL CONDITION 12. This permit is limited to discharging into non-cooled cooling tower, boiler blowdown, safety systems water and stormwater only. Any discharge from additional wastewater sources or modifications of existing sources require a modification of this permit.

SPECIAL CONDITION 13. The end or operation of this facility shall be by or under the supervision of a Certified Class II operator.

SPECIAL CONDITION 17. The permittee shall record monitoring results on discharge monitoring report forms using one such form for each discharge each month. The completed discharge monitoring reports shall be submitted monthly to EPA, no later than the 15th of the following month, unless otherwise specified by the agency, to the following address:

Illinois Environmental Protection Agency

Division of Water Pollution Control

Compliance Assurance Section

2200 Churchill Road

Springfield, Illinois 62702

ENGINEER REVIEW NOTES

Page 2 of

NPDES #IL

M. Facility Water Use

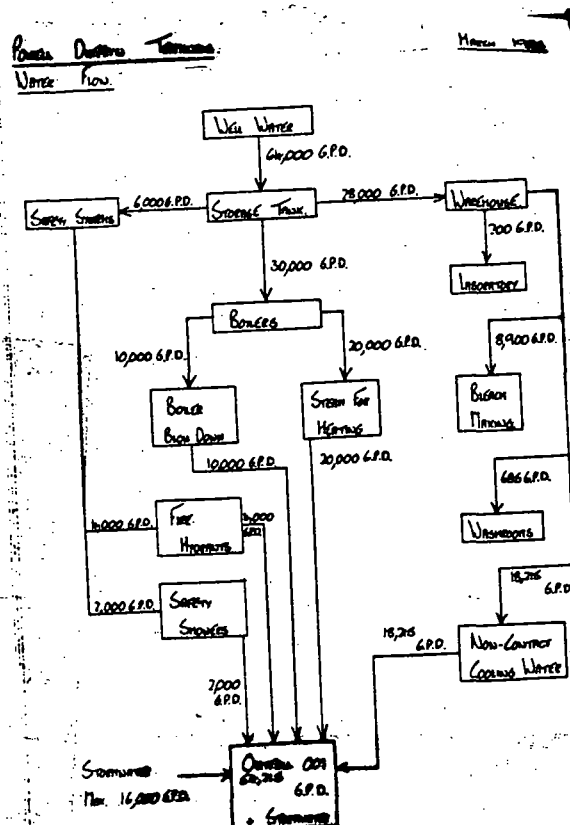
1.	<input checked="" type="checkbox"/> Non-contact Cooling Water	.018 MGD
2.	<input checked="" type="checkbox"/> Boiler Feed Water	.030 MGD
3.	<input type="checkbox"/> Process Water (Include Contact Cooling Water)	MGD
4.	<input type="checkbox"/> Sanitary Water	MGD
5.	<input type="checkbox"/> Other (specify) <u>SAFETY (SHOWERS, HYDRANTS)</u>	.006 MGD
6.	<input type="checkbox"/> Other (specify) <u>STORMWATER</u>	MGD

N. All Facility Discharges

1.	<input checked="" type="checkbox"/> Surface Water	.054 MGD
2.	<input type="checkbox"/> Sanitary Sewer System - P/T	MGD
3.	<input type="checkbox"/> Storm Sewer System	MGD
4.	<input type="checkbox"/> Combined Sewer System - P/T	MGD
5.	<input type="checkbox"/> Surface Impoundment With No Discharge from Fac.	MGD
6.	<input type="checkbox"/> Underground Percolation	MGD
7.	<input type="checkbox"/> Well Injection	MGD
8.	<input type="checkbox"/> Evaporation	MGD
9.	<input type="checkbox"/> Consumption	MGD
10.	<input type="checkbox"/> Other (specify)	MGD

O. Dilution Ratio 0:1

P. Flow Diagram of Waste Sources and Treatment Process (Include design flow):



NPDES Permit No. IL0005126

Notice No. rd/sp1118F

Date: JUL 25 1986

National Pollutant Discharge Elimination System (NPDES)
Permit Program

PUBLIC NOTICE/FACT SHEET
of

Proposed, Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois EPA
Division of Water Pollution Control
Permit Section
2200 Churchill Road
Springfield, Illinois 62706
217/782-0610

Name and Address of Discharger:

Powell Duffryn Terminals, Inc.
Post Office Box 727
Lemont, Illinois 60439

Name and Address of Facility:

Powell Duffryn Terminals, Inc.
Main St. NE of Parker Road
Lemont, Illinois
Cook County

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue an NPDES permit to discharge into the waters of the state and has prepared a draft permit for the above named discharger.

Length of Permit:

Approximately 5 Years

Name of Receiving Waters:

Illinois and Michigan Canal

Classification of Receiving Waters:

General Use

The following water quality and effluent standards and limitations were applied to the discharge:

Except as otherwise noted the effluent concentrations and load limitations (including toxics) were based on effluent and, if applicable, water quality limitations specified in Illinois Pollution Control Board (IPCB), Rules and Regulations, Subtitle C: Water Pollution.

(SIC 4226). The facility is a liquid bulk storage terminal. Plant operation results in an average discharge of .070 MGD of non-contact cooling water, boiler blowdown, safety systems water and stormwater from outfall 001.

Flow will be monitored. The primary parameters to be monitored and limited are pH, Temperature, Total Suspended Solids, Fats, Oils and Grease, Phenols, Iron, and Chromium (Hexavalent).

Application is made for the existing discharge which is located in Cook County, Illinois at latitude 41° 41' 35" and longitude 87° 57' 13".

Monitoring frequencies and reporting requirements were established by using the authority set forth in IPCB, Subtitle C: Water Pollution and/or Subtitle D, Mine Related Water Pollution, Title 40, Section 122.48 and 122.44(i) of the federal regulations, and/or using the authority provided in Section 402(a)(1) of the Clean Water Act.

The effluent limitations and special conditions, if applicable, are appended as a part of the draft permit.

Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. The NPDES permit and notice number(s) must appear on each comment page. Any interested person may submit a written request for a public hearing on the draft permit, stating his or her name and address, the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday.

All comments on the draft permit and requests for hearing must be received by the IEPA not later than 30 days from the date of this publication. If written comments or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. For further information call the Public Notice Clerk at 217/782-0610.

Pursuant to the waiver provisions authorized by 40 CFR 123.24, this proposed permit is within the class, type, and size for which the Regional Administrator, Region V, has waived his right to review, object, or comment on this proposed permit action.

CONTINUED FROM THE FRONT

4 2 2 6	(specify) Special warehousing not elsewhere classified. Chemical bulk stations for hire	(specify)
(specify)	(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME		B. Is the name in Item VIII the owner's?	
8 POWELL DUFFRYN TERMINALS INC.		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box. If "Other" (specify):		D. PHONE (area code & no.)	
F - FEDERAL S - STATE P - PRIVATE	M - PUBLIC (other than federal or state) O - OTHER (specify)	A 2 0 1 4 3 7 2 6 0 0	
E. STREET OR P.O. BOX			
2 COMMERCE STREET			
F. CITY OR TOWN		G. STATE	H. ZIP CODE
8 BAYONNE		NJ	0 7 0 0 2
		IX. INDIAN LAND Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)		D. PSD (Air Emissions from Proposed Sources)	
9 N I L 0 0 0 5 1 2 6	9 P N/A		
B. UIC (Underground Injection of Fluids)		E. OTHER (specify)	
9 U N/A	9 N/A	(specify) See additional sheet	
C. RCRA (Hazardous Wastes)		E. OTHER (specify)	
9 R I L D 9 8 0 8 2 3 8 3 5	9 N/A	(specify)	

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

This facility is operated as a liquid bulk storage terminal. We receive, store and reship liquids. The various products are received and reshipped by truck, rail and barge. The terminal consists of 297 acres of land of which 27 acres are leased from the Metropolitan Sanitary District of Greater Chicago. We have 92 storage tanks on approximately 125 acres.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Larry Brew General Manager	Larry Brew	3-27-86

COMMENTS FOR OFFICIAL USE ONLY

BC	
C	

FORM 1		U.S. ENVIRONMENTAL PROTECTION AGENCY		I. EPA I.D. NUMBER	
GENERAL		GENERAL INFORMATION		GENERAL INSTRUCTIONS	
EPA I.D. NUMBER		Consolidated Permits Program (Read the "General Instructions" before starting.)		If a preprinted label has been provided, affix it in the designated space. Review the information carefully. If any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.	
II. FACILITY NAME		PLEASE PLACE LABEL IN THIS SPACE			
III. FACILITY MAILING ADDRESS					
IV. FACILITY LOCATION					

SPECIFIC QUESTIONS		MARK X		SPECIFIC QUESTIONS		MARK X	
YES	NO	FORM ATTACHED	YES	NO	FORM ATTACHED		
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X	B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X		
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X	X	D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X		
E. Does or will this facility treat, store or dispose of hazardous wastes? (FORM 3)		X	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing within one quarter mile of the well bore underground sources of drinking water? (FORM 4)		X		
Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production; inject fluids used for enhanced recovery of oil or natural gas; or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in-situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X		
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		

III. NAME OF FACILITY	
1	SKIP POWELL DUFFRYN TERMINALS INC.

IV. FACILITY CONTACT	
2	BREW LARRY GENERAL MANAGER 312 257 6222

V. FACILITY MAILING ADDRESS	
3	P.O. BOX 727
4	LEMONT IL 60439

VI. FACILITY LOCATION	
5	MAIN STREET NE OF PARKER ROAD
6	LEMONT IL 60439

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MAR 31 1986

Permit Section Springfield
State of Illinois

FORM 1 GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION (Read the "General Instructions" before starting.)		I. EPA I.D. NUMBER	
II. POLLUTANT CHARACTERISTICS		PLEASE PLACE LABEL IN THIS SPACE		GENERAL INSTRUCTIONS	
I. EPA I.D. NUMBER				If a preprinted label has been provided, fill it in the designated space. Review the information carefully; if any of it is incorrect, correct through it and enter the correct data in the appropriate fill-in area below. Also, if any the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in proper fill-in area(s) below. If the label complete and correct, you need not complete items I, III, V, and VI (except VI-B; which must be completed regardless). Complete items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.	
III. FACILITY NAME					
V. FACILITY MAILING ADDRESS					
VI. FACILITY LOCATION					

SPECIFIC QUESTIONS		MARK 'X'			SPECIFIC QUESTIONS		MARK 'X'		
		YES	NO	FORM ATTACHED			YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)			X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)			X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		X		X	D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)			X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)			X		F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)			X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)			X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)			X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X	

III. NAME OF FACILITY	
1	POWELL DUFFRYN TERMINALS INC.

IV. FACILITY CONTACT	
A. NAME & TITLE (last, first, & title)	
2	BREW LARRY GENERAL MANAGER
B. PHONE (area code & no.)	
3	312 257 6222

V. FACILITY MAILING ADDRESS	
A. STREET OR P.O. BOX	
3	P.O. BOX 727
B. CITY OR TOWN	
4	LEMONT
C. STATE	
5	IL
D. ZIP CODE	
6	60439

VI. FACILITY LOCATION	
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER	
5	MAIN STREET NE OF PARKER ROAD
B. COUNTY NAME	
6	COOK
C. CITY OR TOWN	
7	LEMONT
D. STATE	
8	IL
E. ZIP CODE	
9	60439
F. COUNTY CODE (if known)	
10	

ILD 980823835

FOR PERMITTING COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

Enter the latitude and longitude coordinates to the nearest 15 seconds and the name of the receiving water.

A. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)	
1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.		
001	41	41	35	87	57	13	Illinois & Michigan Canal

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1
001	Water is supplied to the terminal storage tank from a well on the property and is distributed to various parts of the plant.	64,000 G.P.D.		
	Water is fed to the boilers to be converted to steam for heating throughout the terminal.	30,000 G.P.D.	A boiler water PH control is presently being installed and will be operational by 5/31/86.	2-K
	Water is also used to feed the fire hydrants and safety showers throughout the terminal.	6,000 G.P.D.		
	The balance of the water is used in the warehouse.			
	A small quantity is used in the laboratory.	200 G.P.D.		
	Water is used to supply the washrooms.	685 G.P.D.		
	Water is used to make bleach.	8,900 G.P.D.		
	The balance of the water is used non-contact to cool the bleach making process.	18,215 G.P.D.		

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MAR 31 1986

Environmental Protection Agency
Division of Water Pollution Control
Permit Section-Springfield
State of Illinois

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Environmental Protection Agency
Division of Water Pollution Control
Permit Section-Springfield
State of Illinois



POWELL DUFFRYN TERMINALS INC.

Post Office Box 727

Lemont, Illinois 60439 U.S.A.

Telephone 312-257-6222. TELEX 910-258-3283

EXISTING ENVIRONMENTAL PERMITS

<u>Authority</u>	<u>Description</u>	<u>Expires</u>
I.E.P.A. Air Permit Section	Tank 251 Application #82010076 I.D. #031806AAG	1/14/87
I.E.P.A. Air Permit Section	Tanks 8 and 199 Application #83010031 I.D. #031806AAG	1/18/88
I.E.P.A. Air Permit Section	Tank 206 Application #77080017 I.D. #031806AAG	3/11/87
I.E.P.A. Air Permit Section	Tank 224 Application #77080016 I.D. #031806AAG	3/11/87
I.E.P.A. Air Permit Section	Main Terminal Permit Application #73021557 I.D. #031806AAG	10/01/87

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Environmental Protection Agency
Division of Water Pollution Control
Permit Section-Springfield
State of Illinois

TERMINALS:

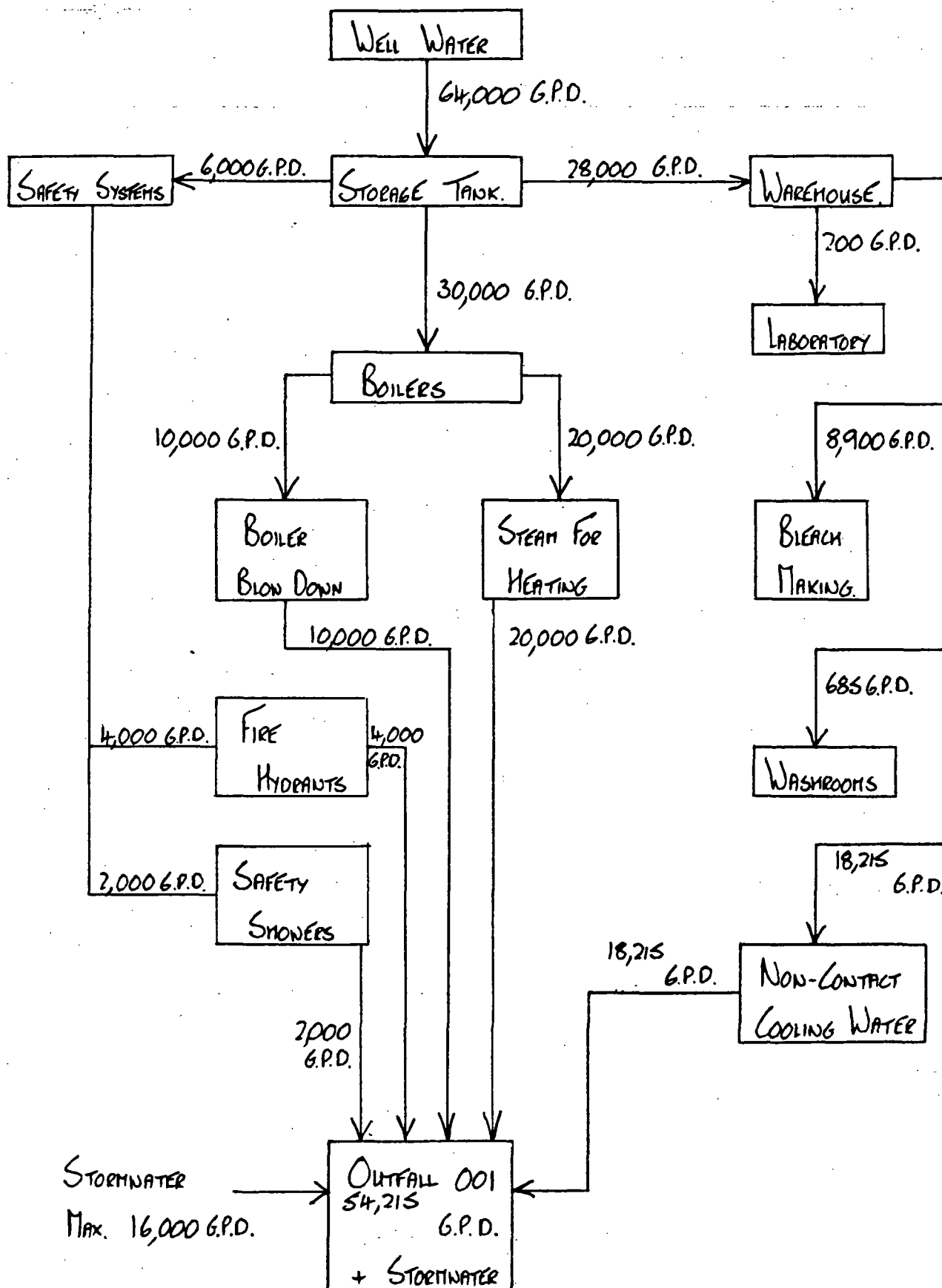
P.O. BOX 283, 2 COMMERCE STREET, BAYONNE, NEW JERSEY 07002
TELEPHONE 201-437-2600. TELEX 710-729-4497

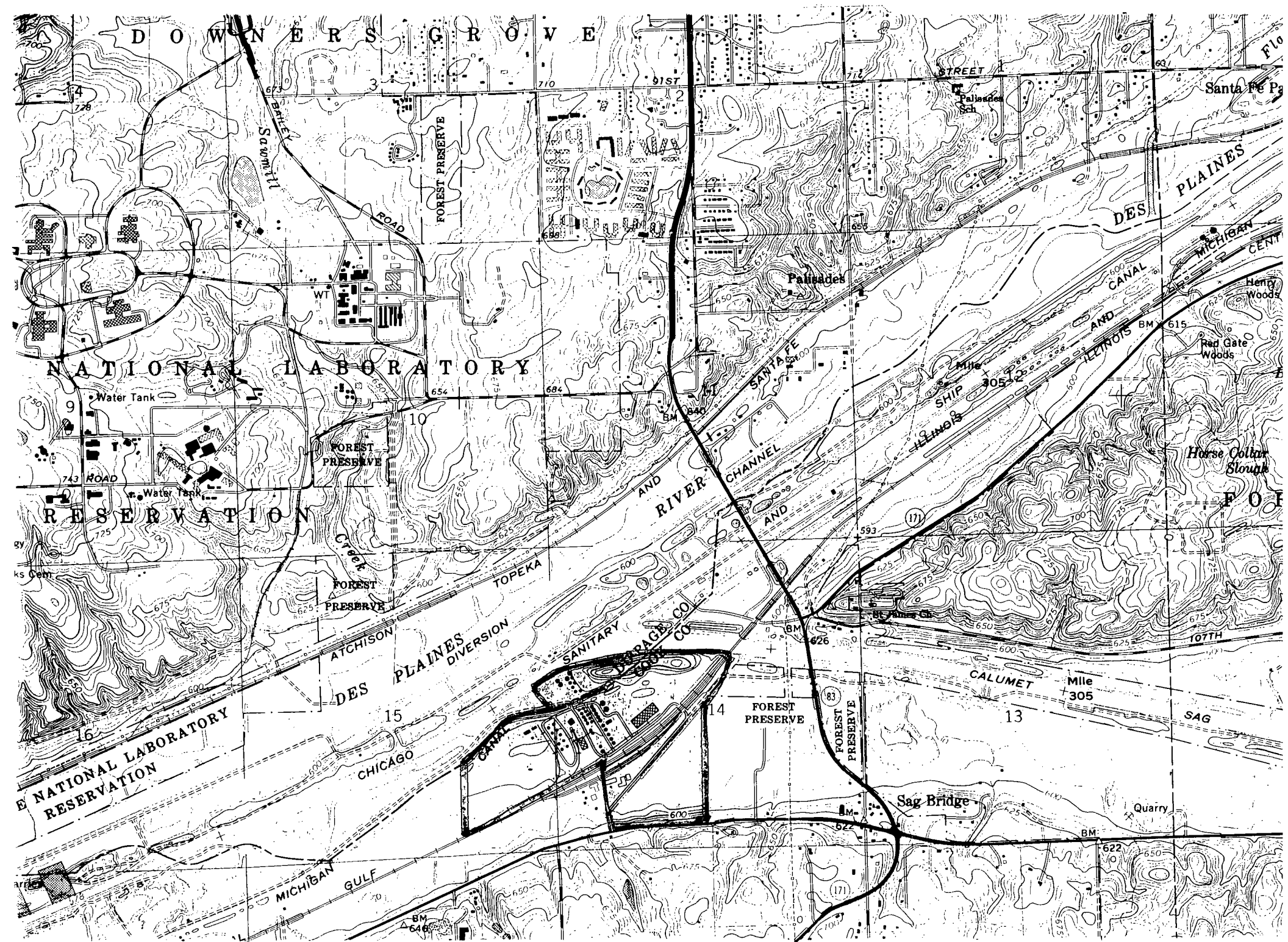
HUTCHINSON ISLAND, POST OFFICE BOX 2503, SAVANNAH, GEORGIA 31402
TELEPHONE 912-236-1579. TELEX 810-784-5656

A POWELL DUFFRYN COMPANY

POWELL DUFFY TERMINALS
WATER FLOW

MARCH 1986





**Reference
Number 13**

POWELL DUFFRYN TERMINALS, INC.

LEMONT, ILLINOIS

SPILL, PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

(S.P.C.C. PLAN)

Prepared in Accordance with 40 CFR-112:
"Oil Pollution Prevention" Promulgated By The
United States Environmental Protection Agency

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AUG 13 1992

IEPA/DLPC

jad7

GENERAL INFORMATION

Name and Address of Terminal

POWELL DUFFRYN TERMINALS, INC.
Lemont Terminal
P. O. Box 727
Lemont IL 60439
Telephone: (708) 257-6222

Head Office

POWELL DUFFRYN TERMINALS, INC.
P. O. Box 283
2 Commerce Street
Bayonne NJ 07002
Telephone: (201) 437-2600

Person Accountable and Designated for Spill Prevention at the Terminal

Mr. Ian S. Vaughan
Terminal Manager

Management Approval and Policy

As required by Federal law, the implementation of an S.P.C.C. plan is applicable to the prevention of pollution of navigable waters or adjoining shorelines by oil. The plan presented includes all products stored at the Lemont terminal.

Compliance with the practices outlined in this S.P.C.C. plan is required of all terminal personnel in conducting any operational procedure. Review and evaluation shall occur at least once every three (3) years or when there has been a change in terminal design, construction, or operation which materially affects the potential for any discharge.

SIGNATURE

Ian Vaughan

Terminal Manager
TITLE

Mr. Ian S. Vaughan
NAME

DATE

December 18th 1989

ENGINEERS CERTIFICATION

I hereby certify that I have examined the facility, and being familiar with the provisions of 40 CFR, Part 112, attest that this S.P.C.C. plan has been prepared in accordance with good engineering practices.



Jerry L. Meece
Signature of Registered
Professional Engineer

DATE: December 18, 1989

THE TERMINAL: AN INTRODUCTION

Powell Duffryn Terminals, Inc., Lemont terminal is a bulk liquid storage facility, an automotive anti-freeze blending and packaging plant, and a dry warehousing facility incorporated into one location. The terminal has the capability to ship and receive products via road, rail, and water. The terminal is located just south of the junction of the Chicago Sanitary and Ship Canal and the Calumet Sag Channel.

A S.P.C.C. plan has previously been devised for this terminal, the previous update being October, 1986.

Products stored at the Lemont terminal include additives and other petroleum products and substances defined as hazardous by the U.S.E.P.A. 40-CFR.59901.

The terminal is a 'service for hire' concern dealing with bulk liquid stored in above ground tanks, the blending and packaging of automotive anti-freeze, and dry warehousing of packaged chemicals in powder form, in bags.

Maps are enclosed showing the geographical location of the terminal (Appendix I) and the facility itself showing the drainage of the terminal (Appendix II). Appendix IV, Safety Procedure No. 003, titled "Spillage and Vapor Emission", details the spill countermeasure procedures, and Appendix V, Safety Procedure No. 007, lists all emergency telephone numbers.

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Appendix IV - Safety Procedure No. 003	
Appendix V - Safety Procedure No. 007	

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AUG 13 1992

IEPA/DLPC

1. Spill History

In the twelve (12) months prior to January 10, 1974 (effective date of 40 CFR 112), no area of the terminal existing during that period experienced a spill into a navigable water way or adjoining shoreline.

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IEPA/DLPC

2. Potential Spills: Prediction and Containment

Each area of the terminal is considered separately in tabulated form. In some cases, the figures quoted are an approximation taking into account pumping rates and storage capacities, but it is considered that sufficient secondary containment is available to prevent discharge from any land based location into the waterway.

LEMONT TERMINAL

POTENTIAL SOURCE	MAJOR TYPE OF EQUIPMENT FAILURE	PREDICTED QUANTITY (GALS.)	PREDICTED RATE (GALS./SEC.)	PREDICTED DIRECTION OF FLOW	SECONDARY CONTAINMENT
Storage Tanks Within Diked Areas Sufficient To Contain Quan. Of Largest Tank Plus Precip.	Tank Rupture	10,000-2,310,000	Dependent On Extent of Failure	Into Diked Areas	Earth and Concrete Dikes
Storage Tanks That Are Not With In A Diked Area Sufficient To Contain Quantity Of Largest Tank Plus Precip.	Tank Rupture	10,000- 30,000	Dependent On Extent Of Failure	Onto Ground Surface And Into The Drainage System	Contained Within The Area Due To The Topo-graphy & The Self Contain Drainage Sys
Tankcar Loading/ Unloading Areas	Tank Rupture, Failure Of Valve, Pipe, Flange, Pump Or Fittings	30,000 Maximum	Approx. 4	Onto Ground Surface And Into The Drainage System	Contained Within The Area Due To The Topo-graphy & The Self Contain Drainage Sys
Tank Truck Ldg/ Unloading Areas	Vehicle Tank Rupture, Failure Of Valve, Pipe, Flange, Pump, Or Fittings	8,000 Maximum	Approx. 4	Onto Ground Surface And Into The Drainage System	Contained Within The Area Due To The Topo-graphy & The Self Contain Drainage Sys
Remaining Shore Side Locations	Failure Of Valve, Pipe, Flange, Or Fittings	Variable	Approx. 300	Onto Ground Surface And Into The Drainage System	Contained Within The Area Due To The Topo-graphy & The Self Contain Drainage Sys

3. Secondary Containment Of Spills - Effectiveness

The secondary containment systems in the terminal are considered adequate to prevent the discharge of any oil or other product stored into the waterway directly or via absorption into the ground water. The methods employed vary throughout the terminal and are outlined in the following sections.

Containment at the marine transfer locations is referred to in the U.S. Coast Guard Manual for the terminal formulated under the jurisdiction of the Federal Department of Transportation (33 CFR 154.156).

Not all tankage is presently contained within diked areas. These tanks are BH #1, BH #2, 3, 111, 112, 113, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, and 520. These tanks have not been provided with full volume containment due to physical restraints created by surrounding ancillary facilities and/or adjacent in-plant traffic patterns further restrict space to the point where full diking is not possible and/or contain products that are considered non-hazardous and do not require secondary containment. Powell Duffryn utilizes a combination of tank monitoring, inspections, and the ability to receive and hold quantities of spilled product in the plant drainage system. Furthermore, tank numbers 3, 111, 112, and 113 are constructed on concrete foundations and the concrete provides a continuous solid layer beneath each tank, since the junction of the top of the concrete and the bottom of the tank steel is located above ground, any possible leaks would immediately become evident. Tank numbers BH #1 and BH #2 are built resting on concrete saddles above ground. Any leakage from either of these two tanks would be identified immediately. Tanks with the 500 series of numbers without secondary diking are visually inspected on a daily basis for any apparent leakage. It is judged that this combination of factors provides these tanks with adequate protection in lieu of full volume secondary containment.

All other tanks in the complex are provided with secondary containment consisting of earthen, stone, and concrete dikes. All these dikes conform to the Metropolitan Water Reclamation District of Greater Chicago (M.W.R.D.) requirement that a dike should contain 110% of the total volume of all the tanks in a particular dike. This provision gives the terminal excellent secondary containment in the event of a spill.

4. Terminal Drainage

All undiked areas are served by a drainage system preventing any direct flow into the waterway.

All diked areas have drainage culverts into the main terminal drainage system. These culverts are controlled by manually operated open and close designed valves. Rainwater collected in these diked areas is inspected before draining is permitted. Collection of rainwater run-off is achieved by using a series of ponds, lagoons, and catchment areas (see Appendix II) terminating in a main retention pond which is capable of holding an uncontrolled spill so that cleanup can be achieved and the spilled material returned to storage.

All flow of drainage water between treatment units is by natural hydraulic flow. Final discharge of drainage water is accomplished from the retention pond with sampling and testing of water carried out under the jurisdiction of the N.P.D.E.S. permit and monitoring of the M.W.R.D. authority.

5. Storage Facilities

A. Tank Construction

All storage tanks are constructed in accordance with American Petroleum Institute Standard 650 ensuring integrity of design and are compatible with the products stored either by means of the material of construction or the provision of an approved interior lining. Tanks in which oil or oil based products are stored are fabricated from welded carbon steel.

B. Secondary Containment

Tank numbers BH #1, BH #2, 3, 111, 112, 113, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, and 520 are not presently contained within diked areas. However, in the event of a spill, the drainage system alongside the tanks is of sufficient size so that a spill would be safely confined.

All other product storage tanks are contained within earth, stone, and concrete dikes of sufficient capacity to meet all applicable statutory requirements.

C. Inspection

All above ground storage tanks are subjected to full internal inspection and integrity testing by the making of non-destruction shell thickness measurements at the completion of hire or once every five (5) years, whichever is sooner. The condition of tank supports and foundations is also ascertained and records of all inspections maintained.

A monthly terminal inspection is undertaken which includes the scrutinization of the exterior and fittings of all storage tanks for signs of leakage or possible hazardous conditions.

D. Internal Heating Coils

All heating coils are steam supplied and the condensate released at the coil outlets is discharged onto areas within the secondary containment facilities of the terminal. Steam pressures are such that it is unlikely that any product would enter a faulty steam coil during heating. Product entering a coil when not in service may very slowly seep from the steam trap at the outlet and would be discharged onto the contained ground surface where it would immediately become noticed. As an added

measure, the pH of the condensate released from all steam heating coils within the terminal is checked on a daily basis. Steam traps are also situated at various intervals along the steam supply lines which also discharge condensate into secondary containment areas. No product may be discharged from these in the event of a coil failure due to the fact that the steam system is isolated from tank heating coils during shut down.

Pressure test of steam heating coils is carried out during the storage tank inspections and testing previously discussed and records are maintained.

E. Fail - Safe Engineering

Tanks are fail safe engineered by direct radio communication between the tank gauger and the pumping station.

6. Terminal Pipeline System Transfer Operations

A. Design and Construction

All buried pipelines are wrapped and coated to prevent corrosion. When a pipeline section is exposed, it is inspected for possible damage or deterioration and corrective action is taken if necessary.

All above ground pipelines are easily amenable to visual inspection. Compatibility with the products in service is closely researched, and dictates the materials of construction plus any insulation or trace heating that may be required. the applicable regulations concerning pipeline construction and design are closely followed.

B. Operating Procedures

When not in use, all pipelines are blank flanged or capped at any open end and all valves remain in the closed position.

C. Pipe Support Design

Steel pipe supports on concrete foundations minimize abrasion and allow for expansion and contraction. Pipelines are designed and constructed to allow for free longitudinal movement.

D. Inspections

A monthly inspection of all pipelines and associated equipment, including flange joints, valve glands and bodies, and supports is carried out and recorded.

E. Protection From Vehicular Traffic

Speed limits of 10 MPH are enforced within the plant. Pipelines that are close to roadways are protected by concrete pads. Warning signs are also displayed to alert drivers of the proximity of above ground piping.

7. Tank Car and Tank Truck Loading/Unloading Areas

A. Regulation Requirements

Tank car and tank truck loading/unloading procedures meet the minimum requirements and regulations established by the Department of Transportation.

B. Secondary Containment

All loading and unloading areas are equipped with quick drainage systems. This containment is designed to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded/unloaded in the plant.

C. Operations

Prior to any transfer operation involving tank trucks or tank cars, terminal personnel are required to carry out a comprehensive examination of all outlets to ensure no leakage is possible. No transfer operation is commenced until any discrepancies noticed are rectified.

The driver of any tank truck is required to turn off the engine and be present at the location of loading/unloading at all times. It is not possible, therefore, for any attempt to be made to remove the vehicle during the transfer operation. Tank cars are braked and chocked, warning notices posted, and continuously attended by terminal personnel to prevent premature removal.

On completion of a transfer operation, all such vehicles are seen to be in a secure condition to leave the transfer area (i.e., outlets are flanged or capped and all valves closed). No tank car or tank truck is allowed to leave the terminal if it is leaking or in an unsafe condition.

8. Inspection And Records

During any plant operation, surveillance of the tanks, pipelines, valves, pumps, and any other equipment in use is mandatory. Any leak or other malfunction discovered is immediately reported and dealt with.

A monthly inspection by supervisory staff of the entire operations area is made and an inspection report made out and submitted for attention and filing. Records of inspection are kept.

Marine transfer pipelines and all hoses are pressure tested annually to meet U.S. Coast Guard requirements (330 CFR 154 and 156) and records maintained.

As previously indicated in this plan, all waste water discharge carried out under N.P.D.E.S. permitting is monitored on a regular basis and records are maintained on file.

Inventories are carefully monitored to ensure no leaks occur. Testing, utilizing a combination of monthly inspections and non-destructive shell thickness measurements, takes place along with internal tank inspections at the completion of hire or a maximum of five (5) years, whichever is sooner. Records of these inspections are kept on file.

9. Terminal Security

Entrance gates are locked and guarded when the plant is unattended, or not in production, by an independent security company under contract to Powell Duffryn Terminals, Inc.

Loading valves on the truck racks are closed and all other valves in the transfer system remain closed when not in operation. Prior to any subsequent operation, the above precautions are inspected to ensure that they remain secure and effective.

Only those personnel involved in transfer operations may operate pump controls. A continuous presence is exercised at the scene of all operations and this, in addition to the security observed at the terminal, ensures that no unauthorized interference with pump systems or controls may take place.

All pipeline systems that may allow discharge from a tank are blank-flanged or capped when in non-operating or non-stand by status.

Illumination at the terminal complies with all the U.S. Coast Guard and U.S.E.P.A. regulations. This should be adequate to detect any intruder or spillage during the hours of darkness.

10. Personnel Training

All terminal operating personnel are properly instructed in the operation of equipment to prevent the discharge of any stored product and the applicability of the pollution control rules and regulations, including the S.P.C.C. plan.

Meetings to satisfy this requirement are held on a monthly basis. During these meetings safety items, operational problems, and any changes in terminal design or procedures are discussed. Additionally, a safety and operations manual is issued to each individual outlining all procedures relevant to terminal operations including specific handling techniques, equipment maintenance, and spill procedures (it should be noted that spill procedures may differ in some cases due to the nature of the product involved. Such information is included on product handling data sheets placed at the rear of the manual). Full understanding of the safety and operations manual, the U.S. Coast Guard operations manual, and the S.P.C.C. plan is a requirement of all operations personnel.

All contractors working on the terminal are bound by a permitting system to ensure safe operation and compliance with the S.P.C.C. plan.

Reporting requirements, spill emergency procedures, and employee training are organized under the direction of the General Manager.

See Appendices IV and V for details of spill countermeasure plan and emergency telephone numbers.

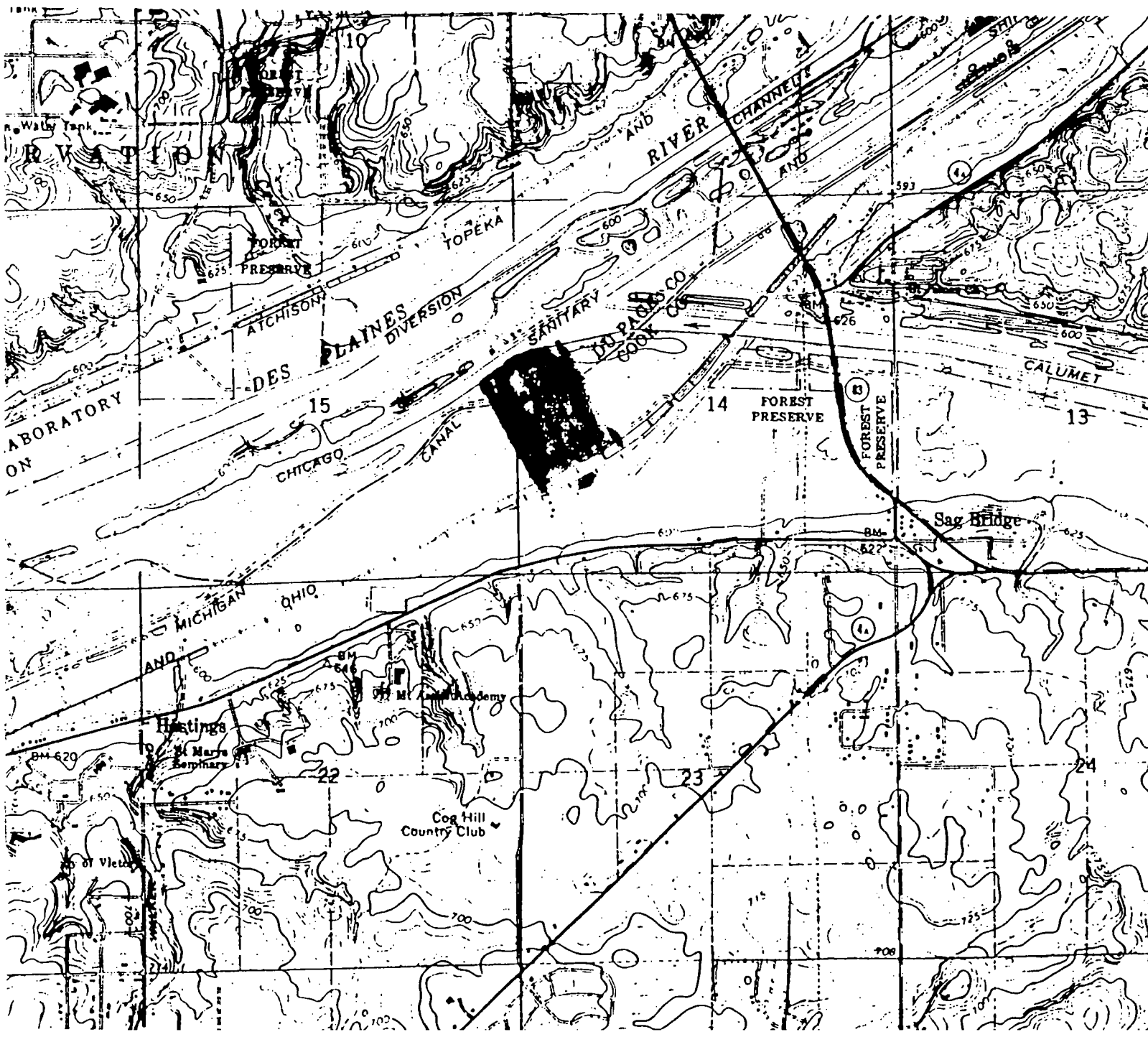
Appendix I

Geographic Location

The Powell Duffryn Terminal Facility is located on the left descending bank of the Chicago Sanitary and Ship Canal just below the Cal-Sag Canal junction at mile point 303.

Facility Address: Powell Duffryn Terminals, Inc.
P. O. Box 727
Lemont, IL 60439

Facility Phone No: (708) 257-6222





APPENDIX IIIMONTHLY TERMINAL INSPECTION RECORD

The inspection of the equipment and facilities mentioned below is to be carried out and any points of concern are to be noted in the appropriate section under "Comments". If any section is considered to be in order, state "Satisfactory".

1. Storage Tanks

Check for signs of leakage or possible leakage; cracks, buckles, bulges, corrosion, tank base condition.

Comments:

2. Valves

Check for signs of leakage or possible leakage; glands, bodies, and for the correct operational condition; sealed or locked (if required), open or closed (as necessary).

Comments:

3. Pipelines and Supports

Check for signs of leakage or possible leakage; flange joints, corrosion, misalignment, movement, insulation, general physical condition, blank flanged or capped (as required).

Comments:

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4. Pumps and Controls

Check pumps for signs of leakage and corrosion, correct condition of controls, condition of electrical wiring, cleanliness of ground surface in immediate area, presence of any necessary pump guards.

Comments:

5. Secondary Containment (Dikes & Diversionary Structures)

Check for absence of cracks, corrosion, general wear and tear, deterioration in impermeable condition and effectiveness. Check levels of separator/catch tanks.

Comments:

6. Ancilliary Equipment

Are all clean up and containment materials and equipment stored in their proper place? Is personnel safety clothing being kept in good order? Are eye-baths, safety showers, first aid equipment in good order?

Comments:

7. Grounding Facilities

Check that ground straps of tanks and pumps and earth wires for tank car/tank truck/shipping transfer facilities are in tact.

Comments:

INSPECTION RECORD (Cont'd. . .)

8. Terminal Surface

Check for cleanliness, condition of drip and catchment pans.
(Pay particular attention to dock areas).

Comments:

9. Drums

Inspect drum stacks for signs of leakage or damage
and general order.

Comments:

10. General

Ensure that all unnecessary lighting is off during day-
light hours. Are general terminal procedures being
complied to by all persons present on the terminal. i.e.,
wearing of hard hats, safety clothing, etc.

Comments:

INSPECTED BY: _____

STATUS: _____

APPENDIX IV

SAFETY PROCEDURE NO. 003

PAGE 1 OF 5

SPILLAGE AND VAPOR EMISSION

PREPARED BY:

Mr. I. Vaughan

DATE:

August 27, 1985

REVIEWED:

DATE:

POWELL DUFFRYN
TERMINALS, INC.
LEMONT, ILLINOIS

SAFETY PROCEDURE NO. 003

PAGE 2 OF 5

In the Event of Any Spillage

- A. Determine whether or not the flow of liquid can be safely stopped by considering:
 - 1. The toxicity and flammability of the product.
 - 2. The toxicity and flammability of the vapor.
 - 3. The accessibility of shut off valves and pump shut down buttons.
- B. If flow can be safely stopped, shut the appropriate valves and/or product pump.
 - . If area is too dangerous to shut off flow, then make sure all drainage valves are closed to ensure that the spill is contained within the plant drainage. Alternatively, if it is a tank leak make sure all dike drainage valves are closed to ensure that the spill is contained within the dike.
- D. Notify senior management and advise them of the following:
 - 1. Location of spill.
 - 2. Product involved.
 - 3. Whether or not flow has been stopped.
 - 4. Any casualties.
 - 5. Any vapor cloud problem.
- E. Upon notification of a spill, senior management will determine the following:
 - 1. Whether or not Government agencies should be notified.

2. Whether or not operations should be shut down and the terminal evacuated.
3. If contractors should be called in to handle cleanup.
4. If the terminal personnel are capable of handling spill.

Action at this point will depend upon the severity of the incident. If further response is needed, the relevant companies and agencies will be called as per the Emergency Telephone Numbers Procedure.

F. In the event of a major spillage, the following procedure must be followed:

1. Person discovering the spill must sound the alarm.
2. Notify the scalehouse personnel of the location of the spillage.
3. Close all drainage valves to effect containment of the spill to the diked areas, if safe to do so.
4. Notify senior management as soon as possible.

G. When alarm is sounded -

1. Assemble all personnel at the relevant assembly points, and account for all personnel.

The assembly points are as follows:

- a. Main Office - for all main office and laboratory personnel.
- b. Scale House - for all scale house personnel supervisors and operators, plus any tankerman working on the barges, contractors working in the terminal and any truck drivers from the north part of the terminal once they have cleared the road of their vehicles.
- c. Boiler House - for all maintenance personnel and any truck drivers once they have cleared the road of their vehicles.

2. The assembly area leaders are as follows:

- a. Main Office - General Manager or in his absence, the Accounting Manager.
- b. Scale House - Operations Manager or in his absence, the Office Manager.

- c. Boiler House - Engineering Manager or in his absence, the Supervisor on duty.
3. The leaders are responsible for ensuring that:
 - a. All personnel are accounted for.
 - b. The assembly area is in no danger; if it is, then evacuation to one of the other assembly points should be carried out as soon as possible..
 - c. The group leaders at the main office and the boiler house must contact the group leader at the scale house, Extention #3969, and let him know that everyone is accounted for.
4. The group leader at the scale house must:
 - a. Ensure all personnel are accounted for.
 - b. Station two men at entrance to terminal to ensure that the road is clear for the emergency services.
5. Await for arrival of emergency services before evacuation of all non-essential personnel can proceed under the guidance of the fire department and police.
6. Senior staff will work with emergency contractors and outside emergency services to control spill as per the emergency instructions posted in the Material Safety Data Sheets in the Action Plan, located in the Operations Manager's office.
7. General Manager or designate will inform all government agencies appropriate to the emergency.
8. Safety Procedure 006 will be followed regarding communications with the news media or the public.
9. Normal operations will not restart until the spill has been contained, the fumes or vapor cloud has been controlled, and the clean up crews have the situation in hand. The decision to restart operations is that of the General Manager or his designate after the all clear has been confirmed by local authorities.
- H. In the event of a major vapor release, the following procedure must be followed:
 1. Person discovering the vapor release must sound the alarm.
 2. Notify the scale house of the location of the release, the wind direction, and the nature of the release.
 3. Notify senior management as soon as possible.

1. Assemble all personnel at relevant assembly points and account for all personnel, if safe to do so.
2. Assembly points should be as in G.1 except when an assembly point is likely to be enveloped in the released vapor.
3. As quickly as possible, shut down all sources of ignition (i.e., boilers, asphalt heaters, electric switchgear, etc.).
4. If vapor release is toxic of nature, then group leaders will instruct all assembled personnel to evacuate the site in the safest means possible.
5. Senior staff will work with outside emergency services to inform public or other personnel of the incident.
6. General Manager or designate will inform all government agencies appropriate to the emergency.
7. Safety Procedure 006 will be followed regarding communications with the news media or the public.

APPENDIX V

SAFETY PROCEDURE NO. 007

PAGE 1 OF 5

EMERGENCY TELEPHONE NUMBERS PROCEDURE

PREPARED BY:

Mr. M. Wood

REVIEWED:

DATE:

January 27, 1986

DATE:

POWELL DUFFRYN
TERMINALS, INC.
LEMONT, ILLINOIS

REVISED BY:

Mr. J. Durham

DATED:

August 26, 1991

SAFETY PROCEDURE NO. 007

PAGE 2 OF 5

A. This procedure is in two (2) sections:

1. Section I refers to general emergency telephone numbers, which must be available to all personnel in the terminal enabling them to quickly contact:
 - a) Senior management;
 - b) Police, fire, and other emergency services; and
 - c) Utility companies.
2. Section II refers to emergency numbers available only to the terminal manager, compliance manager, operation managers, terminal superintendent, and plant superintendent. These numbers are generally Government agencies, contractors, and tenants, etc.

This list should be reviewed for personnel and telephone number changes each month. If changes are made in addition to revising the list, each recipient of the list should be notified. The operations manager is responsible for this procedure review.

B. Telephone numbers listed in Section I should be issued to all personnel for insertion in the Operations Handbook. Additionally, these numbers should be posted in readily accessible conspicuous places. These are:

1. Boiler house;
2. Scale house;
3. Main office;
4. Packaging plant offices (2);
5. Operations locker room; and
6. Packaging plant break room.

C. Section I telephone numbers are as follows:

1. Terminal Personnel

Terminal Manager. . . . Ian Vaughan . . .708-910-5416
 Compliance Manager. . . . James Durham. . .708-257-1334
 Operations Manager,
 Terminal. Mike Martino. . .815-838-8863
 Operations Manager,
 Packaging Chris Backes. . .708-971-7961
 Terminal Superintendent . Mike Crampton . .815-725-8961
 Plant Superintendent. . . Randy Richmond. .815-458-2978
 Weekend Supervisor. . . . Pager #708-440-3123

2. Emergency Services

Lemont Fire Department.708-257-2221
 Ambulance & Paramedics.708-257-2221
 Lemont Police Department.708-257-2226
 Cook County Sheriff708-458-1000
 DuPage County Sheriff708-668-0900
 State Police.815-726-6291

3. Utility Companies

Northern Illinois Gas815-727-5561
 Commonwealth Edison 24-Hours.815-727-5600
 Station # of TerminalESF J331
 Joint Utilities Location Information
 For Excavators - J.U.L.I.E..800-892-0123

D. Section II telephone numbers are as follows:

1. Government Agencies

Illinois Emergency Service and Disaster Agency800-782-7860
United States Coast Guard800-424-8802
7:00 AM - 3:30 PM312-353-1226
Metropolitan Water Reclamation District of Greater Chicago	
8:00 AM - 4:30 PM312-751-5697
24-Hours.312-751-5133
Emergency312-751-5134
National Response Center.800-424-8802
Illinois Environmental Protection Agency. .	.708-531-5900
Cook County Department of Environmental Control708-865-6165
Cook County Local Emergency Planning Committee.708-865-4766

Contact the compliance department, which will notify the appropriate agencies. If the compliance department cannot be located in a reasonable time period, notify the National Response Center agency. Notify Chemtrec, if it is a transportation emergency, in addition to the others.

E. Contractors

1. Spill Containment and Chemical Clean-Up Service

Best Environmental.815-725-1554
 Bill Wisneski (home).815-741-4817
 Bob Sleyko (home)815-725-1044

2. Excavation, Diking, and Containment

Country Landscape & Supply.708-257-3023

3. Electrical Services

B & K Electrical Contracting.708-349-6586
 Pager #708-953-5405

4. Piping, Welding, and Fitting

Thermo Piping312-344-7010

F. Tenants

Alexander Companies.708-257-9330
 Bodie-Hoover Petroleum708-257-7781
 Osco, Inc.708-257-2220
 Unocal Chemicals708-257-5433
 Emulsion Systems708-257-5169

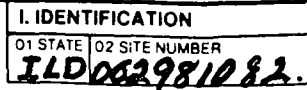
G. Miscellaneous Numbers

Chemtrec for Chemical Advise800-424-9300
 Badger Pipeline (in case of leak).708-257-6767
 Palos Community Hospital708-351-4500
 Silver Cross Hospital (emergency).815-729-7566

Reference Number 14

031 162 5023

WATER-0005126 EPA AIR-031806AAE		POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT		I. IDENTIFICATION 01 STATE 02 SITE NUMBER ILD 002981082	
II. SITE NAME AND LOCATION					
01 SITE NAME (Legal, common, or descriptive name of site)			02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER		
ALEXANDER CHEM-DIV OF N. AMER CAR			LE MONT & PARKER RD - P.O. BOX 248		
03 CITY			04 STATE	05 ZIP CODE	06 COUNTY
LE MONT			IL	60439	COOK
09 COORDINATES LATITUDE		LONGITUDE		07 COUNTY CODE	08 CONG DIST
41 41 35.0		087 57 13.0		031	044
10 DIRECTIONS TO SITE (Starting from nearest public road)					
SEE ATTACHMENT'S ON THE BACK					
III. RESPONSIBLE PARTIES					
01 OWNER (If known)			02 STREET (Business, mailing, residential)		
POWELL DUFFRYN TERMINALS INC			LE MONT & PARKER RD P.O. BOX 327		
03 CITY			04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
LE MONT			IL	60439	312-257-6222
07 OPERATOR (If known and different from owner)			08 STREET (Business, mailing, residential)		
09 CITY			10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
					()
13 TYPE OF OWNERSHIP (Check one)					
<input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN					
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)					
<input checked="" type="checkbox"/> A. RCRA 3001 DATE RECEIVED: 05/21/81 <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: _____ / _____ / _____ <input type="checkbox"/> C. NONE MONTH DAY YEAR MONTH DAY YEAR					
IV. CHARACTERIZATION OF POTENTIAL HAZARD					
01 ON SITE INSPECTION			BY (Check all that apply)		
<input checked="" type="checkbox"/> YES DATE 10/03/73 <input type="checkbox"/> NO MONTH DAY YEAR 04-19-83			<input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input checked="" type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____		
02 SITE STATUS (Check one)			03 YEARS OF OPERATION		
<input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN			1965 <input type="checkbox"/> UNKNOWN BEGINNING YEAR ENDING YEAR		
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED					
OILY WASTE (SOLUBLE/FLAMMABLE)					
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION					
SURFACE WATER (ENVIR) FIRE/EXPLOSION (ENVIR)					
V. PRIORITY ASSESSMENT					
01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)					
<input type="checkbox"/> A. HIGH (Inspection required promptly) <input type="checkbox"/> B. MEDIUM (Inspection required) <input checked="" type="checkbox"/> C. LOW (Inspect on time available basis) <input type="checkbox"/> D. NONE (No further action needed, complete current disposition form)					
VI. INFORMATION AVAILABLE FROM					
01 CONTACT		02 OF (Agency/Organization)		03 TELEPHONE NUMBER	
LARRY BREW		TERMINAL MANAGER		312-257-6222	
04 PERSON RESPONSIBLE FOR ASSESSMENT		05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
LARRY WINNER		EPA	HSPS	217 7829848	10/10/84 MONTH DAY YEAR



01 PHYSICAL STATES (Check all that apply):	02 WASTE QUANTITY AT SITE	03 WASTE CHARACTERISTICS (Check all that apply):	
<input type="checkbox"/> A SOLID <input type="checkbox"/> B POWDER, FINES <input type="checkbox"/> C SLUDGE <input type="checkbox"/> D OTHER _____ (Specify)	Measures of waste quantities must be independent: <input type="checkbox"/> E SLURRY <input checked="" type="checkbox"/> F LIQUID <input type="checkbox"/> G GAS TONS _____ CUBIC YARDS <u>UNKNOWN</u> NO OF DRUMS _____	<input type="checkbox"/> A TOXIC <input type="checkbox"/> B CORROSIVE <input type="checkbox"/> C RADIOACTIVE <input type="checkbox"/> D PERSISTENT <input checked="" type="checkbox"/> F SOLUBLE <input checked="" type="checkbox"/> F INFECTIOUS <input checked="" type="checkbox"/> G FLAMMABLE <input type="checkbox"/> H IGNITABLE	<input type="checkbox"/> I HIGHLY VOLATILE <input type="checkbox"/> J EXPLOSIVE <input type="checkbox"/> K REACTIVE <input type="checkbox"/> L INCOMPATIBLE <input type="checkbox"/> M NOT APPLICABLE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	UNKNOWN		
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

[illegible]

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

ILD 002981082

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☒ B. SURFACE WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☒ POTENTIAL

☐ ALLEGED

OIL SPILL IN THE ILL. & MICH. CANAL.

01 ☐ C. CONTAMINATION OF AIR

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☒ POTENTIAL

☐ ALLEGED

AN OIL SPILL

01 ☐ E. DIRECT CONTACT

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☒ F. CONTAMINATION OF SOIL

03 AREA POTENTIALLY AFFECTED: _____ (Acres)

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☒ POTENTIAL

☐ ALLEGED

AN OIL SPILL.

01 ☐ G. DRINKING WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ H. WORKER EXPOSURE/INJURY

03 WORKERS POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ I. POPULATION EXPOSURE/INJURY

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

WATER-0005126
EPA AIR-031806 ARE

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

IL0 002981082

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include name(s) of species)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES
(Spills, runoff, standing liquids, leaking drums)

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., site files, sample analysis, reports)

EPA - AIR & WATER FILES

EXECUTIVE SUMMARY

Alexander Chemical Division of North American Car., Lemont and Parker Road, P.O. Box 248, Lemont, IL 60439, Cook County, Lat. 41°-41'-35", Lon. 087°-57'-13". Person to contact: Larry Brew, Terminal Manager, 312/257-6222.

This facility manufactures water purification supplies for municipal water and swimming pools in addition to sodium hypochlorite.

Chlorine is received by rail car and stored on a siding at the west end of the plant. Flexible hoses are connected to the cars, and to insulated and refrigerated inlet piping. This suppresses the vapor pressure of chlorine. The cars are next padded with compressed air. The valves are opened on the top of the cars to complete the hookup. A flag is placed on the chlorine car that is being unloaded. The liquid chlorine is then fed into 105,150 and 2,000 pound capacities cylinders. A safety cap and valve protection car is attached and is ready for shipment.

The sodium hypochlorite is received and unloaded in the same manner as chlorine. The solution is pumped into tank trucks for delivery to customers. This plant has no boiler; heating is supplied by terminal processes service from whom steam is purchased.

The company does not have a specified air contaminant or an emission source. However, any facility handling chlorine has a potential for incidents.

North American Car Corp. was purchased February 1, 1983 by Powell Duffryn Terminals, Inc., P.O. Box 327, Lemont, IL 60439. Person to contact: Larry Brew, Terminal Manager 312/257-6222.

This facility is a bulk petroleum products storage terminal located on the Illinois and Michigan canal which empties into the Chicago Sanitary and Ship canal.

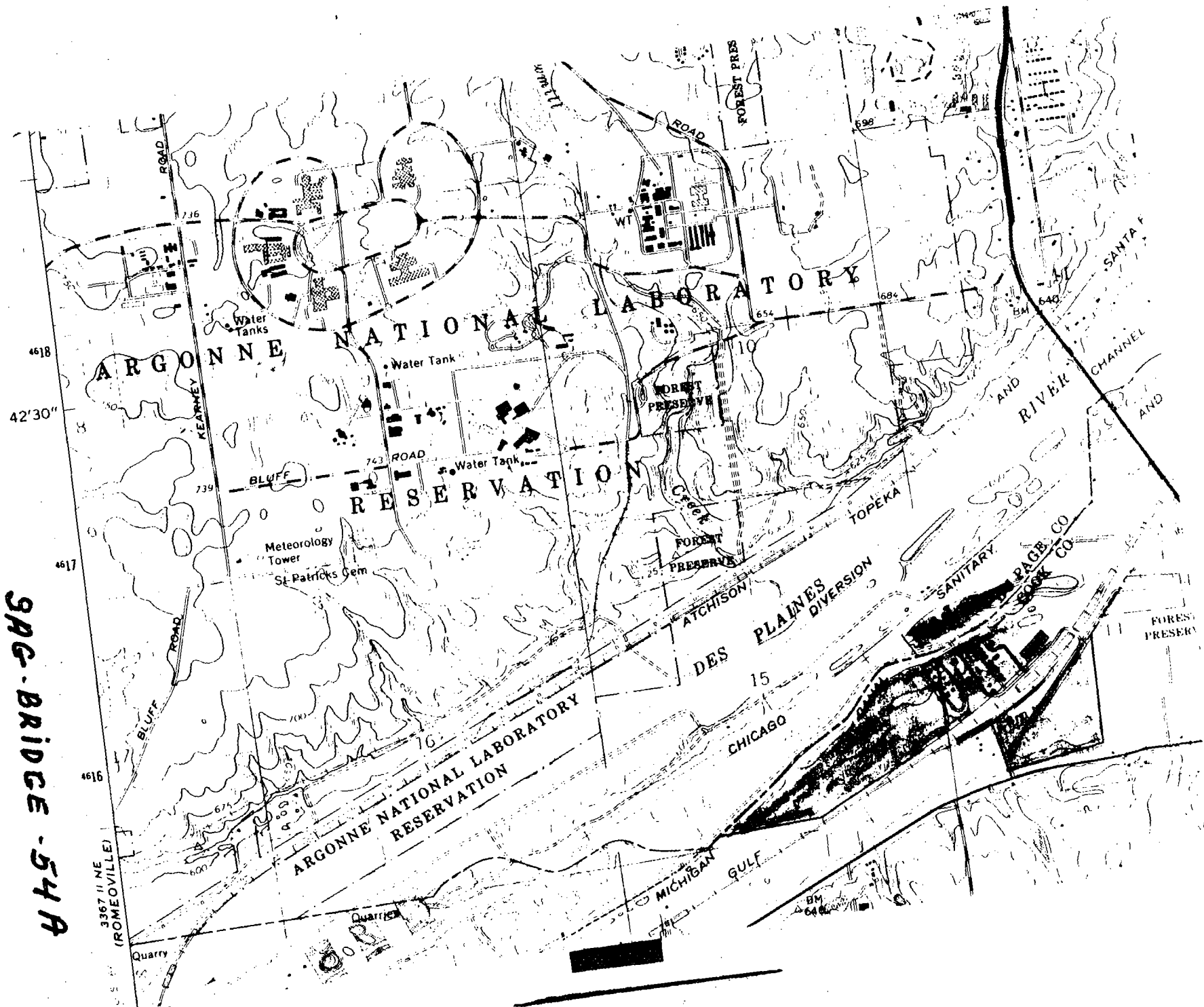
Oil and grease has been observed in the canal (see water sampling forms on the back).

This Agency recommend that the F.I.T. contractor take soil and water samples in and around this site for the migration of chemicals and oil products from the plant property.

This Agency recommends a low priority for this facility.

LW:mkb:S/102

396-BRIDGE-54A

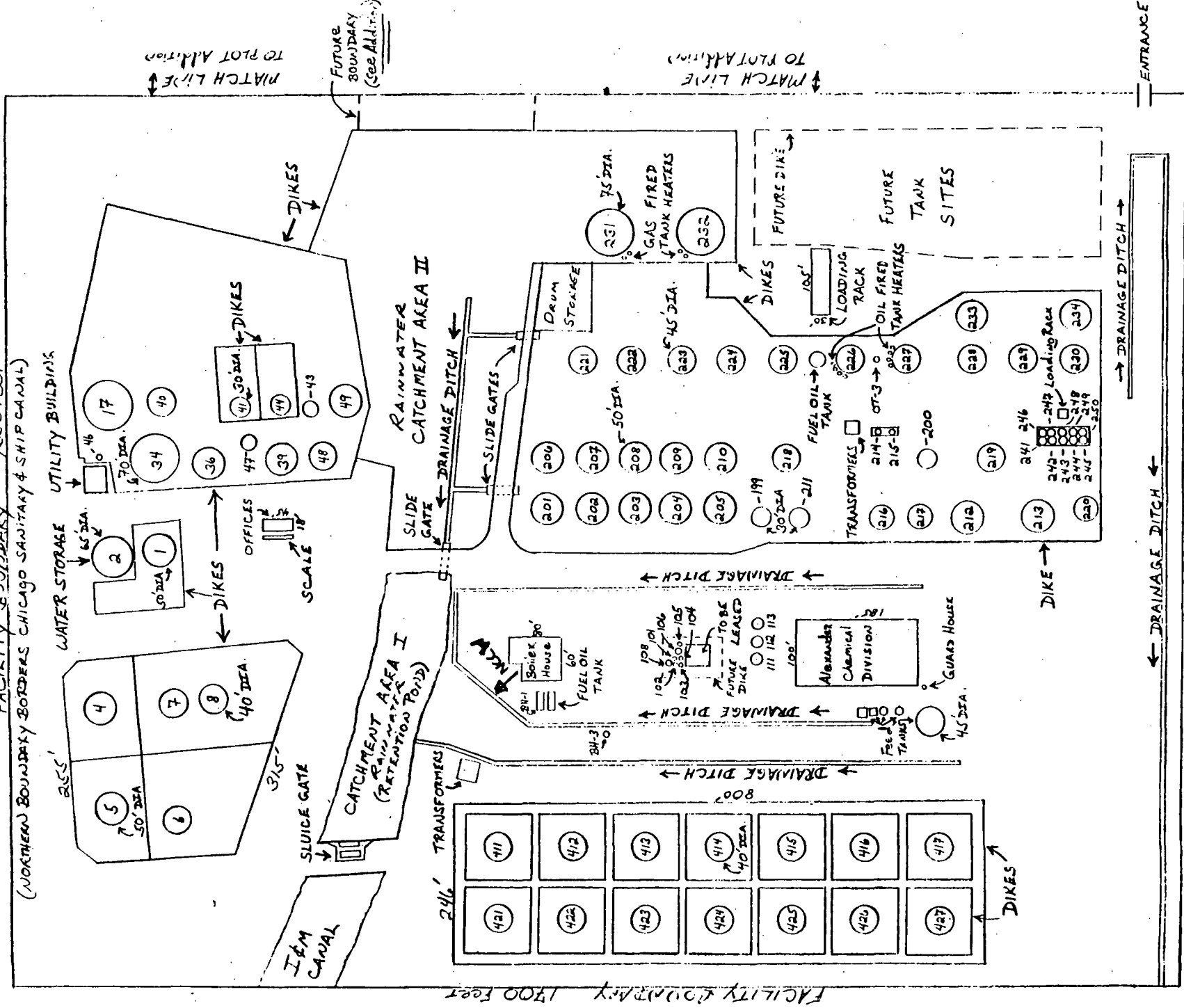




LEMONT FACILITY
SCALE: 1 INCH = 200 FEET
(William B. Comp. 10/31/80)

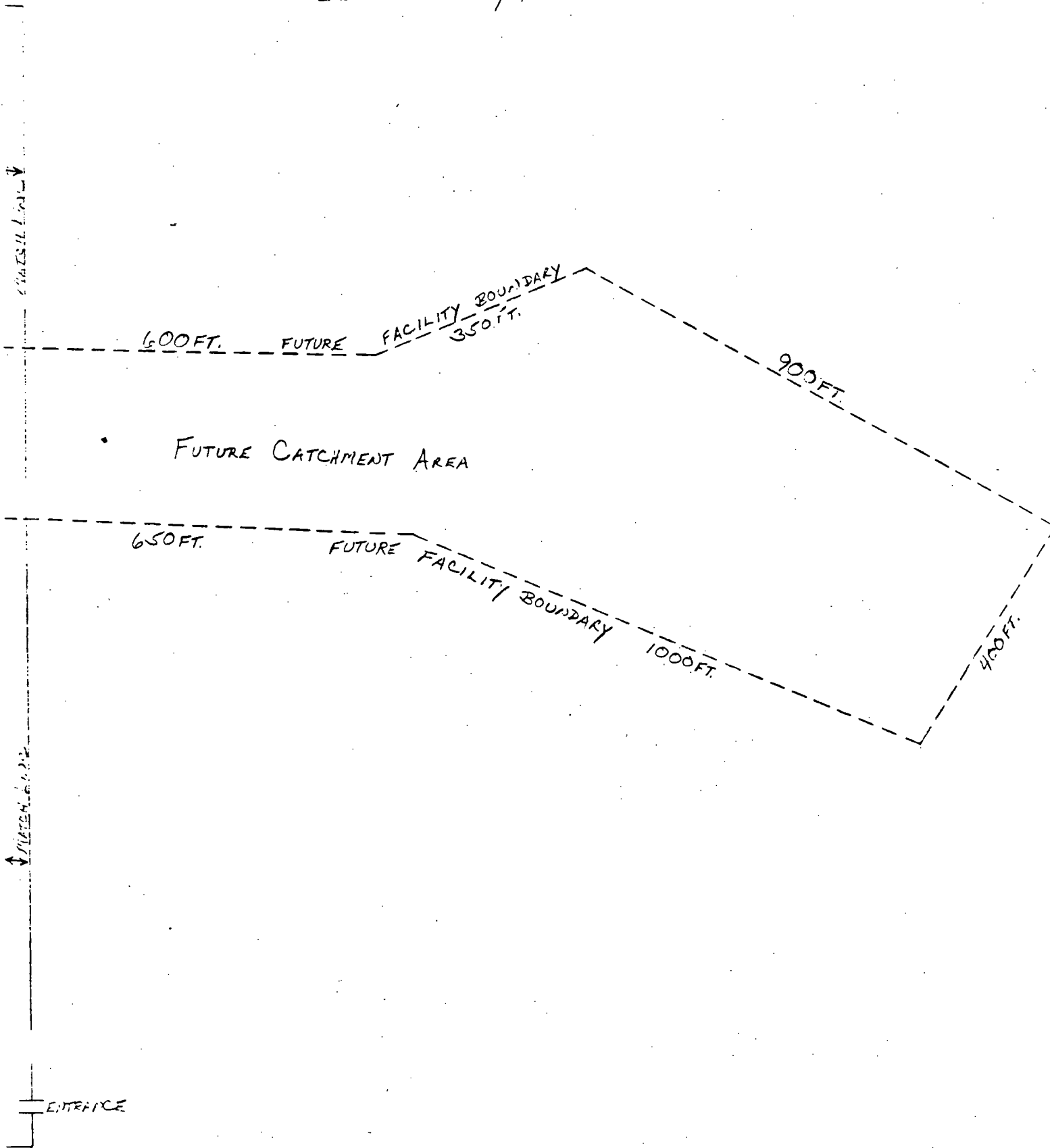
* NOTE: ALL TANKS ARE BULK STORAGE TANKS UNLESS OTHERWISE INDICATED.

FACILITY BOUNDARY 1550 FEET
(NORTHERN BOUNDARY BORDERS CHICAGO SANITARY & SHIP CANAL)





LEMOINT FACILITY PLOT Addition

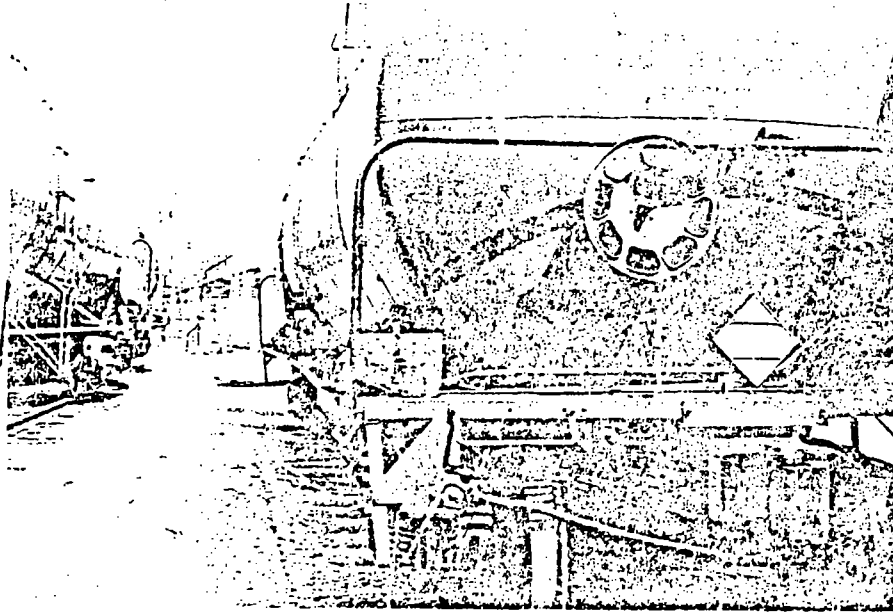


031806AAE

ALEXANDER CHEMICAL COMPANY LEMONT

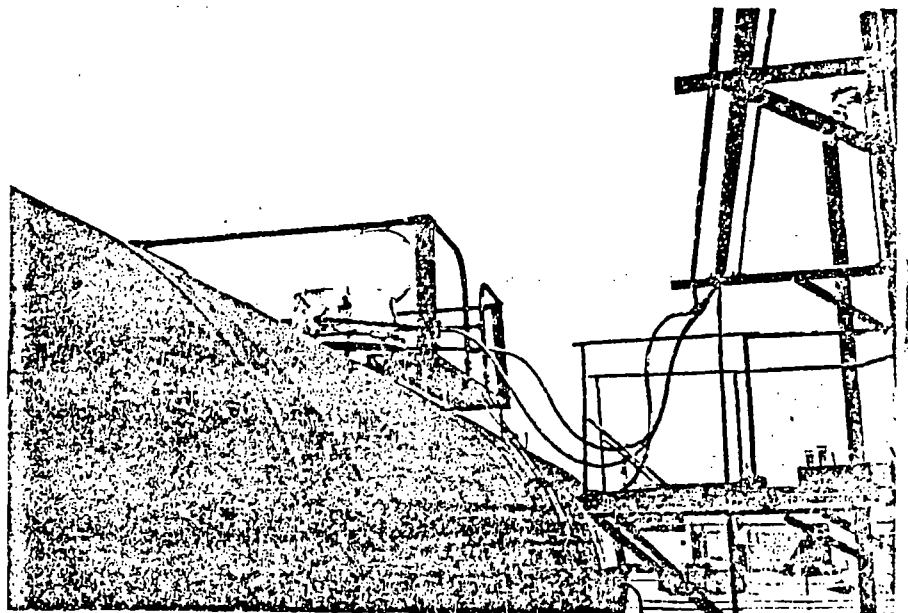
August 12, 1974

N. Vonesu



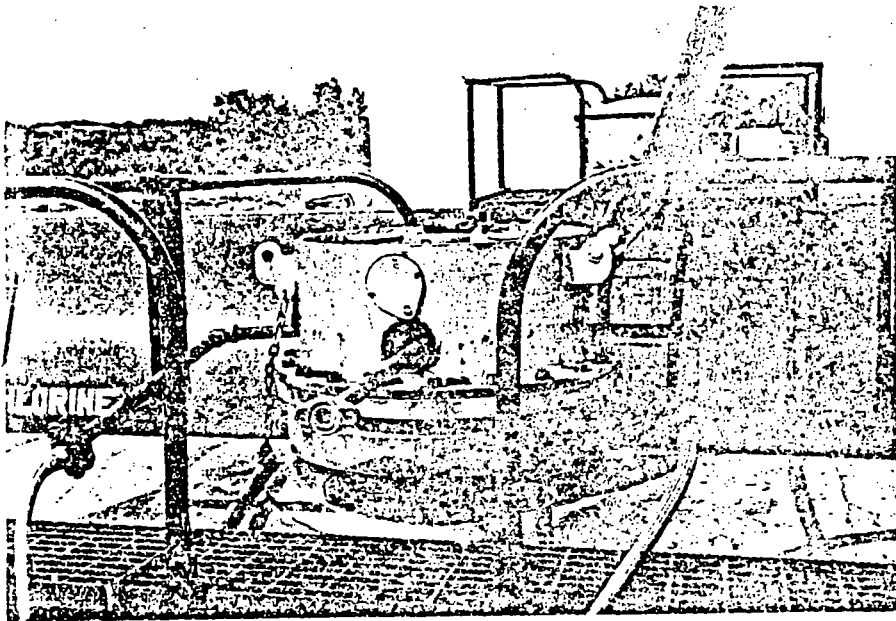
#1. Flag indicating
Chlorine car connect
to Plant System

#2 Lines from car to
plant.

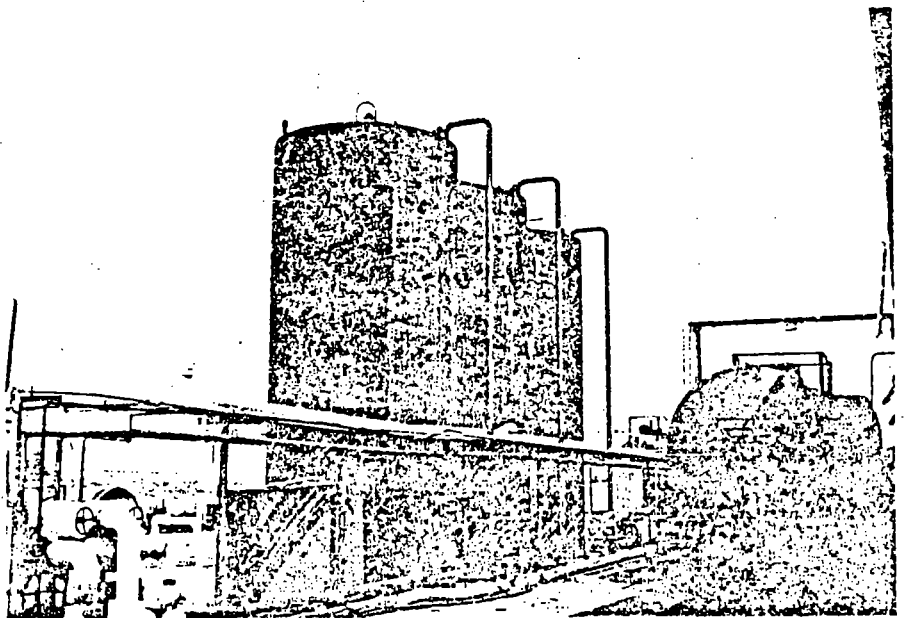


0150 1127

ALEXANDER CHEMICAL COMPANY LEMONT
August 12, 1974
N. Vonesu



#3 Closeup of Piping
center connection is
for padding.



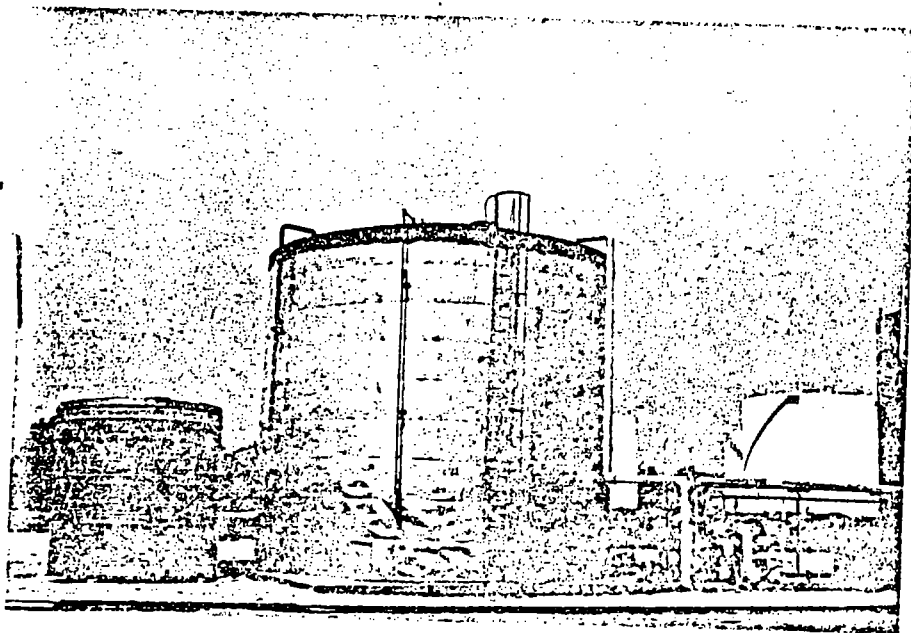
#4 Raw material storage

015101123

ALEXANDER CHEMICAL COMPANY LEMONT

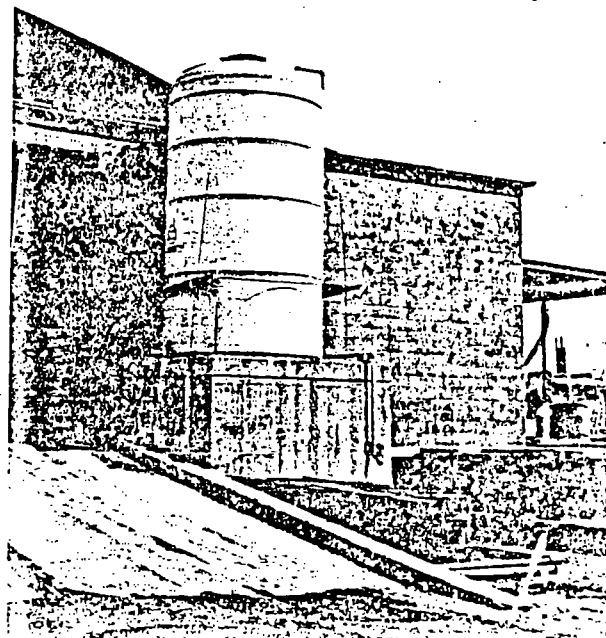
August 12, 1974

N. Vonesu

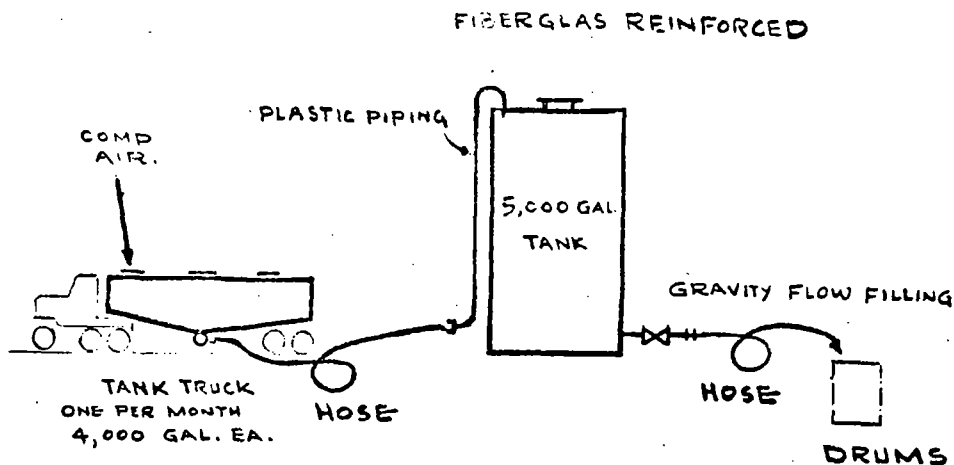


#5 Insulated Na OH
Storage

#6 Acid Storage



015 01127



HYDROFLUOSILICIC ACID

LOW

MID-AMERICA ENGINEERS INC.
ONE NORTH WACKER DRIVE
CHICAGO, ILLINOIS 60606

ALEXANDER CHEMICAL
HYDROFLUOSILICIC ACID
FLOW SHEET

ADDENDUM NO.	DRAWING NO.
BULLETIN NO.	SK-102072
REV. TO DWO. NO.	
DRAWN BY RLG	JOB NO. 7272-01
CHECKED BY	
SCALE:	DATE: 10-19-72

COPY TO - ~~ATC~~
~~LAC~~
→ WPC
~~ENT~~

RECEIVED IN THE
OFFICE OF THE DIRECTOR

DEC 12 1987

3

Environmental Protection Agency
2200 Churchill Road
Springfield, IL. 62706

BULK RATE
U.S. POSTAGE
PAID
PERMIT 704
SPRINGFIELD, IL.

* ADDRESS CHANGE *

Please remove this name from your mailing list. They are no longer in business.

➔ * 03116200056 *
NORTH AMERICAN CAR
PO BOX 248
LEMONT IL 60439

Replace with this company who purchased North American on 2/1/83.



Powell Duffryn Terminals Inc.

P.O. BOX 327
LEMONT, IL 60439

NOW IS



SAMPLE COLLECTED BY

LOCATION OF SAMPLING POINT

BASIN

SUB-BASIN (IF NONE ENTER "DIRECT")

TRIBUTARY

MINOR TRIBUTARY

SEND ORIGINAL
OF RESULTS TO:SUB-BASIN
OFFICE☐PERFORMANCE MEASUREMENT
SECTION, SPRINGFIELDSEND COPY OF
RESULTS TO:EDP SERVICES
SECTION, SPRINGFIELD

CARD COL.

CARD NO. 1

CARD COL.

2

CARD NO. 2

CARD COL.

3

CARD NO. 3

1-3 GIA

BASIN CODE

6-7 06

PLANT OR STATION NO.

8-10 032FIPS COUNTY CODE
(USE ONLY FOR PLANTS)11-17 C 04345LAB
ID NO.11-17 C 04345LAB
ID NO.11-17 C 04345LAB
ID NO.18 X SAMPLE TYPE CODE
(SEE LIST BELOW)18 SAMPLE TYPE CODE18 X SAMPLE TYPE CODE19-20 83 YEAR

YEAR

21-22 04 MONTH

MONTH

23-24 09 DAY

DAY

25-26 10 HOUR (NEAREST)

HOUR (NEAREST)

27 A TIME OF DAY (A,P,M.)

TIME OF DAY (A,P,M.)

28-30 WATER TEMPERATURE
(DEG. F.)WATER TEMPERATURE
(DEG. F.)31 FIELD D.O.

FIELD D.O.

32 8.9 (UNITS)

(UNITS)

33 TOTAL
PHOSPHORUSTOTAL
PHOSPHORUS34 V.G.
O.D.V.G.
O.D.35 D.O.D.

D.O.D.

36 MENOLS

MENOLS

37 AMMONIA N

AMMONIA N

38 NITRATE +
NITRATE AS NNITRATE +
NITRATE AS N39 ORGANIC N

ORGANIC N

40 TOTAL N

TOTAL N

41 D.B./E.C.

D.B./E.C.

42 10 TOTAL SUSP.
SOLIDSTOTAL SUSP.
SOLIDS

SAMPLE TYPE CODES:

- A=DOMESTIC WASTE ONLY
I=INDUSTRIAL WASTE ONLY
M=MIXED DOMESTIC & INDUSTRIAL WASTE
S=STREAM, LAKE, OR RECEIVING WATER QUALITY
D=SEWAGE TREATMENT PLANT WASTE
U=OTHER OR TYPE UNKNOWN

SIGN BELOW FOR EFFLUENT SAMPLE

TRANSPORTED BY C. K. FullinRECEIVED BY TIME

TRANSPORTED BY

ALL RESULTS EXPRESSED AS MG/L EXCEPT
WHERE OTHERWISE STATED.PHYSICAL OBSERVATIONS & COMMENTS (ABNORMAL COLOR, ODOR, FLOATING MATTER, OIL,
SLUDGE, TURBIDITY, WEATHER, LOCATION OF SAMPLING POINT):From Fullin to C. K. Fullin

FOR LABORATORY USE ONLY

SAMPLE RECEIVED BY M. L. LohDATE REC'D 4-18-83 TIME REC'D 1130DATE ANALYSES COMPLETED DATE RESULTS FORWARDED MAY -6-1983TOTAL TESTS REQUESTED

WASTE TREATMENT WORKS EFFLUENT SAMPLING FORM

SAMPLE COLLECTED BY

LOCATION OF SAMPLING POINT

C Kallis

north american

03441

JAN 5 1982

car cor

Des plaines

SUB-BASIN IF NONE ENTER "DIRECT" CHICAGO SHIP

TRIBUTARY

I M Canal

MINOR TRIBUTARY

SEND ORIGINAL OF RESULTS TO:

maywood

SUB-BASIN OFFICE

PERFORMANCE MEASUREMENT SECTION, SPRINGFIELD

SEND COPY OF EDP SERVICES RESULTS TO: SECTION, SPRINGFIELD

CARD COL.

CARD NO. 1

CARD COL.

2

CARD NO. 2

CARD COL.

3

CARD NO. 3

2-5 GIA

BASIN CODE

6-7 06

PLANT OR STATION NO.

8-10 032

FIPS COUNTY CODE (USE ONLY FOR PLANT)

11-17 C003441

LAB ID NO.

11-17 C003441

LAB ID NO.

11-17 C003441

LAB ID NO.

18 X SAMPLE TYPE CODE (SEE LIST BELOW)

SAMPLE TYPE CODE

18 SAMPLE TYPE CODE

19-20 83 YEAR

YEAR

ARSENIC

19-23

21-22 01 MONTH

MONTH

IRON

23-25

23-24 05 DAY

DAY

Cadmium

25-28

25-26 12 HOUR

HOUR

CHROMIUM (HEX)

28-30

27 N TIME OF DAY

TIME OF DAY

CHROMIUM (TRI)

30-32

28-29 WATER TEMPERATURE

WATER TEMPERATURE

CHROMIUM (TOTAL)

32-34

31-32 FIELD D.O.

FIELD D.O.

COPPER

42-45

33-34 9.4

9.4

CYANIDE

45-48

TOTAL PHOSPHORUS

TOTAL PHOSPHORUS

IRON (TOTAL)

48-50

AVG. BOD

AVG. BOD

IRON (DISSOLVED)

50-52

C.O.D.

C.O.D.

LEAD

52-54

PHENOLS

PHENOLS

MANGANESE

54-56

FECAL COL.

FECAL COL.

MERCURY (MICROGM/L)

56-58

AMMONIA N

AMMONIA N

NICKEL

58-60

NITRATE + NITRITE AS N

NITRATE + NITRITE AS N

SELENIUM

60-62

ORGANIC N

ORGANIC N

SILVER

62-64

TOTAL N

TOTAL N

ZINC

64-66

T.D.S./E.C.

T.D.S./E.C.

TOTAL SUSP. SOLIDS

TOTAL SUSP. SOLIDS

85

85

77-80

77-80

SAMPLE TYPE CODES:

- A = DOMESTIC WASTE ONLY
I = INDUSTRIAL WASTE ONLY
M = MIXED DOMESTIC & INDUSTRIAL WASTE
S = STREAM, LAKE, OR RECEIVING WATER QUALITY
T = MINE DRAINAGE OR WASTE
U = OTHER OR TYPE UNKNOWN

SIGN BELOW FOR EFFLUENT SAMPLE

TRANSPORTED BY C Kallis

RECEIVED BY TIME

TRANSPORTED BY

RECEIVED BY

ALL RESULTS EXPRESSED AS MG/L EXCEPT WHERE OTHERWISE STATED.

PHYSICAL OBSERVATIONS & COMMENTS (ABNORMAL COLOR, ODOR, FLOATING MATTER, OIL, SLUDGE, TURBIDITY, WEATHER, LOCATION OF SAMPLING POINT):

From Weir After Oil Separator.

FOR LABORATORY USE ONLY

SAMPLE RECEIVED BY A. J. J. J.

DATE REC'D 1-5-82 TIME REC'D 2:20

DATE ANALYSES COMPLETED JAN 22 1982

DATE RESULTS FORWARDED

TOTAL TESTS REQUESTED TESTS RUN

LAB SECTION Chicago

LAB SECTION



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

RECEIVED

MEMORANDUM

JAN 24 1992

Environmental Protection Agency
Division of Water Pollution Control
Permit Section-Springfield
State of Illinois

DATE: January 22, 1992

TO: Mary Jo Heise, Fiscal

FROM: Margaret Howard, Division of Legal Counsel *MH*

SUBJECT: Case: People v. Powell Duffryn Terminals, Inc.
File #: 430-90 Case #: 90CH9205 Order Date: 1/21/92
Payer's Address: P.O. Box 727
Lemont, IL 60439

Payer's FEIN/SS #: 13-3148481
Payer's I.D. #:

Reference
Number 15

Attached is a copy of the order levying a penalty in the case mentioned above. Powell Duffryn Terminals is to pay a penalty of \$45,000.00 to be deposited into the Environmental Protection Trust Fund. The payment schedule is as follows:

<u>Amount</u>	<u>Due Date</u>
\$45,000.00	February 21, 1992

Please notify me and Mary Meyer if the penalty is paid. If the penalty or any portion of it has not been paid within ten days after the due date, please notify us of the nonpayment status so that the Agency may request that appropriate collection actions be taken.

I will notify you of any appeals in this matter that may change the due date or the amount to be paid. I will also notify you if the order is vacated.

Division staff is requested to advise me as to any actions by the defendant in compliance or noncompliance with the order.

MH:mm/64-2
Attachments

cc: Joseph E. Svoboda, General Counsel, DLC
James Park, Manager, DWPC
Bruce Carlson, Deputy Counsel, DWPC
Jay Patel, FOS/Maywood
Ken Rogers, DWPC/CAS
Carol Morrison, DWPC
Tom McSwiggin, Permits, DWPC
Mary Meyer
Linda Cooper

IN THE CIRCUIT COURT OF COOK COUNTY, ILLINOIS
COUNTY DEPARTMENT, CHANCERY DIVISION

PEOPLE OF THE STATE OF ILLINOIS,
ex rel. Roland W. Burris, Attorney
General of the State of Illinois,

Plaintiff,

vs.

No. 90 CH 9205

POWELL DUFFRYN TERMINALS, INC.,
an Illinois corporation,

Defendant.

CONSENT ORDER

THE PEOPLE OF THE STATE OF ILLINOIS, ex rel. ROLAND W. BUR-
RIS, Attorney General of the State of Illinois, and Defendant,
Powell Duffryn Terminals, Inc. ("Powell Duffryn"), an Illinois
corporation, have agreed to the making of this Consent Order.
These stipulated facts shall be the findings of fact by this
Court and the conclusions herein shall be the conclusions of law
by this Court.

I.

The parties stipulate that this Consent Order is entered
into for purposes of settlement only and that neither the fact
that a party has entered into this Consent Order, nor any of the
facts stipulated herein, shall be introduced into evidence in
this or any other proceeding except to enforce the terms hereof
by the parties to this agreement. Notwithstanding the previous
sentence, this Consent Order and any Court Order accepting same
may be used in any future enforcement action as evidence of a
past adjudication of violation of the Act for purposes of Section

at Main Street northeast of Parker Road in Lemont, Cook County, Illinois. The defendant discharges wastewater into drainage ditches that empty into a main retention pond. The main retention pond discharges into the Illinois and Michigan ("I & M") canal, a water of the State.

C. HISTORY AND NATURE OF VIOLATIONS

1. Discharge from Powell Duffryn's facility is authorized by NPDES Permit No. IL0005126, issued on November 13, 1986 with an effective modification date of January 22, 1987. All references to "the permit" or "the NPDES permit" specifically apply to the afore-described permit and the terms therein effective January 22, 1987. Among other things, the NPDES Permit requires that discharges of certain contaminants not exceed the following final effluent limitations:

<u>Parameter</u>	<u>Monthly Average mg/l</u>	<u>Daily Maximum mg/l</u>
Total Suspended Solids	15.0	30.0
Fats, Oils and Grease	15.0	30.0
Iron	2.0	4.0
Chlorine Residual		.75
Phenols	.3	.6
pH	The pH shall remain within the range of 6.0-9.0 at all times.	

2. The State alleges and Powell Duffryn admits that discharges from Powell Duffryn's facility have exceeded the above respective effluent limitations during the following calendar months:

MONTH	FATS, OILS AND GREASE		PHENOLS		PH 6.0-9.0
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
7/88	X		X		
9/88	X				
10/88					X
2/89			X		
12/89					X

3. Powell Duffryn has caused or allowed the monthly average concentration of iron, oils, phenols and suspended solids to exceed the effluent limits in Section 304.124(a) of the Board Water Pollution Regulations, 35 Ill. Adm. Code 304.124(a), in certain months specified in Count II of the Complaint during the period of January 1987 through April 1990.

4. Powell Duffryn's NPDES Permit No. IL0005126 requires that defendant submit monthly Discharge Monitoring Reports ("DMRs") to the IEPA which report, inter alia the number of excursions for all parameters. Powell Duffryn failed to record its number of excursions for any of the parameters on its DMR's from November 1989 to March 1990 in violation of the Reporting Requirements of 35 Ill. Adm. Code 305.102(b).

5. Powell Duffryn's NPDES Permit No. IL0005126 requires the permittee to report all instances of non-compliance at the time its DMR is submitted. Powell Duffryn failed to submit the required notices of non-compliance indicating violations with its monthly DMRs during a period beginning in January 1987 and continuing to June 1990 in violation of the Reporting Requirements of 35 Ill. Adm. Code 305.102(b).

Duffryn's property was drained directly to the main retention pond via a system of drainage ditches and a secondary (upper) pond. No drainage control equipment or positive shut-off valves were in operation to control discharge from the drainage ditches into the main retention pond. The discharge from the main retention pond into the I & M Canal was controlled by a main valve.

2. During September, 1990, Powell Duffryn installed a drainage control system in order to control wastewater from the drainage ditches and upper pond into the main retention pond. The drainage control system consists of the following:

- a. A number of concrete dams and positive shut-off valves were installed at various locations to isolate all incoming streams from the drainage channels to the main retention pond;
- b. Wastewater collects in the dammed drainage channels where it is tested before being released into the main retention pond;
- c. Powell Duffryn will release effluent from its main retention pond into the I & M canal only after representative samples are taken from the main retention pond, analyzed and found to meet all effluent limitations.

III.

APPLICABILITY

This Consent Order shall apply to and be binding upon the State, the Agency, Powell Duffryn, Powell Duffryn's officers, agents, employees, successors and assigns. Powell Duffryn shall not raise as a defense to any action to enforce this Consent Order the failure of any of its agents or employees to take such

plans implemented hereunder and attachments hereto shall be declared inconsistent with the provisions of the Act, Ill. Rev. Stat. 1989, ch. 111-1/2, par. 1001 et seq., the provisions of the Act shall be controlling.

VII.

FINAL JUDGMENT ORDER

Pursuant to the stipulation of fact and law by the parties, this Court having jurisdiction over the parties and subject matter, the parties having appeared, due notice having been given, the Court having considered the stipulated facts and being advised in the premises, the Court finds the following relief appropriate:

IT IS HEREBY ORDERED, ADJUDGED AND DECREED:

A. PENALTY

Defendants shall pay a penalty of \$45,000.00. The penalty shall be paid within 30 days of the date of this Order and shall be paid by certified check to the Treasurer of the State of Illinois and designated to the Environmental Protection Trust Fund on the check, and submitted to:

Illinois Environmental Protection Agency
Fiscal Services
2200 Churchill Road
P.O. Box 19276
Springfield, Illinois 62794-9276

A copy of the check shall be sent to the following:

Matthew J. Dunn
Chief
Environmental Control Division
100 W. Randolph St., 12th Floor
Chicago, Illinois 60601

2. All contingent penalties shall be paid within 30 days of said violations by certified check payable to the Treasurer of the State of Illinois, designated to the Environmental Protection Trust Fund, and shall be sent by first class mail to:

Illinois Environmental Protection Agency
Fiscal Services Division
2200 Churchill Road
P.O. Box 19276
Springfield, Illinois 62794-9276

3. The contingent penalties set forth herein above shall be enforceable by the Plaintiff and shall be in addition to, and shall not preclude, the use of any other remedies or sanctions which may be available to the Plaintiff by reason of Powell Duffryn's noncompliance with the provisions of this Consent Order.

D. FINAL DISCHARGE LIMITATIONS

On the date of entry of this Consent Decree, and thereafter, Powell Duffryn will meet the final effluent limits specified in NPDES Permit No. IL0005126, and all applicable statutes, rules and regulations.

E. CEASE AND DESIST

Powell Duffryn shall cease and desist from violation of the Act, any and all of 35 Ill. Adm. Code, Subtitle C, and the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq., except as specifically provided in this Consent Order. Powell Duffryn shall at all times properly operate and maintain its drainage control system so as to produce the best quality effluent possible.

actions by persons or events beyond the control of Powell Duffryn. Such events include, but are not limited to, extraordinary weather events, inability to perform due to an act of God, act of public enemy, war, blockade, public riot, lightning, fire, storm, tornado, flood, explosion, or labor dispute. Increased costs shall not be considered circumstances beyond the control of Powell Duffryn.

2. When, in the opinion of Powell Duffryn, circumstances have occurred which cause or may cause a violation of any provision of this Consent Order, Powell Duffryn shall orally notify the State as soon as practicable but not later than ten (10) business days after learning of such occurrence. Within fifteen (15) business days of learning of such occurrence, Powell Duffryn shall, in writing, describe in detail the precise cause or causes of the claimed occurrence which caused or will cause the failure to comply, the measures taken or to be taken to prevent or minimize the failure to comply, and the timetable by which those measures will be implemented. Powell Duffryn will adopt all reasonable measures to avoid or minimize any such failure to comply.

3. If Powell Duffryn and the State cannot agree whether the reason for the noncompliance was beyond the control of Powell Duffryn, such dispute or disputes shall be resolved by the Court pursuant to the Dispute Resolution provisions herein. Powell Duffryn shall have the burden of going forward and proving by a preponderance of the evidence that the circumstances alleged as the cause of the noncompliance were beyond its control.

deems necessary and proper. If amendment, modification or enforcement of the Order is sought by the State, the Illinois Attorney General's Office shall have the responsibility of filing the necessary papers.

2. Powell Duffryn shall file any petition with the Court within forty-five (45) calendar days after the informal negotiation period (or any extension) has expired, and, where the State has the responsibility of filing, the State shall petition the Court within ninety (90) calendar days after the expiration of the informal negotiation period (or any extension).

K. JURISDICTION

This Court shall retain jurisdiction of this matter for the purpose of amending, interpreting, implementing and enforcing the terms and conditions of this Consent Order and for the purpose of adjudicating all matters of dispute among the parties. This Consent Order shall terminate on the last day of the 12th consecutive month after entry of this Consent Decree, during which time Powell Duffryn's drainage control system has resulted in compliance with the final effluent limitations of its NPDES permit for all parameters during that 12 month period and Powell Duffryn has satisfied the terms and conditions of this Consent Order.

L. COSTS AND EXPENSES

Each party to this Consent Order shall bear its own costs and expenses, including attorney fees.



DATE: April 8, 1991

TO: Margaret Howard, DLC/Water

FROM: Rob Sulski, DWPC/FOS-II *RBS*

SUBJECT: Powell Duffryn Terminals (Cook Co.)

~~CONFIDENTIAL~~
Region II File

EX
ELY
ELM

As a follow up to our conversation, MWRDGC tells me:

- 1) MWRD owns the Powell Duffryn land between the Chicago Sanitary & Ship (CSSC) and the I&M canals.
- 2) The I&M Heritage Trail is located in between the CSSC and the Des Plaines River in the vicinity of Powell Duffryn (See attached map).

Attachment

RBS

REGION II
Field Operations

APP 10 1991

Environmental Protection
State of Illinois



DATE: March 13, 1991 cc. DWPC/RU
TO: Margaret Howard, DLC/Water Region II File
FROM: Rob Sulski, DWPC/FOS-II *RBS* RBS
SUBJECT: Alexander Chemical (Cook Co.) 031

We learned that the subject facility spills or loses up to 1500 gallons per day of both saleable and off-spec. bleach, some of which enters a ditch tributary of Powell Duffryn's pond. It was also reported that Alexander treats wastewater without a State permit.

FOS will pay Alexander a visit when one of us is in the Lemont area.



DATE: October 29, 1990

cc: DWPC/FOS/RU, B. Busch
DWPC/CAS
DLC, S. Warrington

TO: File - Powell Duffryn Terminals (PDT)
(Cook County) NPDES IL0005126

FROM: Rob Sulski, DWPC/FOS-Region II *RBS*

SUBJECT: Enforcement Meeting

From 1:00 to 2:30 pm on the above date PDT, Attorney General and Agency representatives met at the A.G.'s office in order to discuss compliance options (see attached attendance list). Some subjects of the discussions were:

1. PDT sued their tenant, Alexander Chemical Company, for causing PDT's NPDES violations. Alexander in turn counter sued PDT, claiming the lease agreement requires PDT to treat Alexander's wastewater. The first court hearing is tomorrow.
2. PDT installed valve control structures at all retention pond inlets and a back-up structure at the pond outlet. This SPCC containment remedy in itself would not be sufficient to avert excursions.
3. Is the retention pond, a bulkheaded reach of the I&M Canal, Waters of the State, making Alexander a separate point source subject to NPDES permitting?
4. Would there be advantages/disadvantages of piping the discharge(s) to the Chicago Sanitary and Ship Canal (i.e. Secondary Contact Waters, dilution, etc.)?

PDT will apprise us on the outcome of their litigation with Alexander and they will forward us a Compliance Plan.

RBS:fs:28

cc. Bude/Fox/RS

Enl
RBS
TRID



POWELL DUFFRYN TERMINALS INC.

Post Office Box 727
Lemont, Illinois 60439-0727 USA
Telephone 312-257-6222. TELEX 910-258-3283
Telefax 312-257-7135

January 5, 1989

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1701 First Avenue
Maywood, Illinois 60153

Attention: Mr. Theodore M. Denning, P.E.

Dear Mr. Denning:

In answer to your compliance inquiry letter dated December 22, 1988 wherein our October D.M.R. report showed we were high on our total suspended solids and chlorine residuals.

The TSS was high because of the generally high pH from our tenant's bleach manufacturing facility as their outfall co-mingles with ours.

Our outfall system is equipped with a 12" valve that is kept closed and opened only when we have the outfall on spec. The valve has been leaking a small amount of water for the past two months. A new valve has been received and will be installed this week. This will allow us to get the outlet water on spec. before it is released.

We are also meeting with our tenant's senior operations staff and are demanding that they take immediate corrective actions to reduce the pH and chlorine level in their outfall.

Our November D.M.R. report will show about the same high range as October but the December report will be back in range.

Any questions you may have I will try to answer.

Very truly yours,

Larry Brew
Larry Brew
General Manager

LB/jmp

RECEIVED
ILL. ENVIRONMENTAL PROTECTION AGENCY

JAN 6 - 1989

**DIV. WATER POLLUTION CONTROL
FIELD OPERATIONS SECTION - REG. 7**

TERMINALS:

P.O. BOX 283, 2 COMMERCE STREET, BAYONNE, NEW JERSEY 07002
TELEPHONE 201-437-2600. TELEX 710-729-4497

HUTCHINSON ISLAND, POST OFFICE BOX 2503, SAVANNAH, GEORGIA 31402
TELEPHONE 912-236-1579. TELEX 810-784-5656



POWELL DUFFRYN TERMINALS INC
(COOK COUNTY) NPDES # IL0005126

COMPLIANCE INQUIRY LETTER

CERTIFIED MAIL
RETURN RECEIPT #P 884 948 138

December 22, 1988

Powell Duffryn Terminals Inc.
P.O. Box 727
Lemont, Illinois 60439

Gentlemen:

This inquiry concerns an apparent excursion from the terms and conditions of your National Pollutant Discharge Elimination System (NPDES) permit.

A review of your Discharge Monitoring Report (DMR) for the month of October showed a Total Suspended Solid (TSS) of 65.6 mg/l and a Chlorine Residual of 3.0 mg/l. Your permit limits are 30 mg/l and 0.75 mg/l max. respectively.

Please submit in writing within fifteen (15) days of receipt of this letter, the reasons for the excursion described above as well as a description of the steps which have been taken to prevent any further recurrence of such excursions from your permit. You are also advised to attach a Notice of Noncompliance (NON) to your DMRs should any excursions from your permit occur in the future.

Further, take notice that failure to respond to this notice may be the subject of further action by the Agency pursuant to the Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, et. seq.

Questions concerning this letter should be addressed to Mr. Enoch Mensah in the Agency at 312/345-9780.

Very truly yours,

DIVISION OF WATER POLLUTION CONTROL


Theodore M. Denning, P.E.
Manager, Chicago Area Region
Field Operations Section

TMD:EM:bj:053J

cc: DWPC/FOS/RU ✓
DWPC/CAS
TMD
JR

CC DWPC/FOS/RV

POWELL DUFFRYN TERMINALS INC.

Post Office Box 727
Lemont, Illinois 60439 U.S.A.
Telephone 312-257-6222. TELEX 910-258-3283
March 14, 1986

~~RES~~
DVK
FCY



Mr. Robert Sulski
Illinois E.P.A.
Water Pollution - 6th Floor
1701 S. 1st Avenue
Maywood, IL 60153

Dear Mr. Sulski:

RECEIVED
U.S. ENVIRONMENTAL AGENCY

MAR 18 1986

DIV. OF WATER POLLUTION CONTROL
FIELD OPERATIONS SECTION - REG. 2

This letter is intended to confirm the Styrene spill that occurred at 1:00 A.M. on February 4, 1986.

The details were as follows:

Our loader started to load a truck with Styrene. He asked the truck driver if the truck outlet valves were closed. The driver said, "Yes" and our loader started loading and did not know the product was running onto the ground until approximately 350 gallons had spilled.

It was raining hard at the time and the truck was surrounded by water.

Petrochem Services was called for the clean-up and arrived at 2:00 A.M.

I reported the spill to the M.S.D. at 9:10 A.M. on February 4, 1986; to your office at 9:30 A.M. on February 4, 1986; and to the I.E.P.A. in Springfield, IL, at 9:45 A.M. the same date.

Petrochem picked up 4,500 gallons of Styrene and water and disposed of it at EWR, Coal City, IL, under our I.E.P.A. Disposal Permit #941340-0630200003.

If I can answer any questions for you pertaining to the above, please call.

Yours sincerely,

Larry Brew

Larry Brew
General Manager

RECEIVED
Field Operations Section

MAR 20 1986

Environmental Protection
State of Illinois

LB/jl

TERMINALS:

P.O. BOX 283, 2 COMMERCE STREET, BAYONNE, NEW JERSEY 07002
TELEPHONE 201-437-2600. TELEX 710-729-4497
HUTCHINSON ISLAND, POST OFFICE BOX 2503, SAVANNAH, GEORGIA 31402
TELEPHONE 912-236-1579. TELEX 810-784-5656



TO: File: Powell Buggen - 140005126
FROM: Bob Sulski
SUBJECT: Styrene Spill

DATE: 2/4/86

☒ Information only

☐ Response requested

Larry Brew called me at 0915 hrs to tell me the following:

1. Permittal spilled 400 gallons of styrene to ground during truck backing at 0115 hrs on 2/4/86.

2. All material was contained; none reached the holding ponds.

3. Petrochem was on site within 1/2 hr of the spill.

4. Presently, all remaining drums are being gathered and clean-up should be completed.

3/12/86 NON not received

Called Larry Brew, who apologized and said he would send it

Reference Number 16

✓ CC - Records Unit, FOS/DWPC

RECEIVED

Field Operations Section

RECONNAISSANCE VISIT NOTES

JUN 17 1976

Environmental Protection Agency

NORTH AMERICAN CAR CORPORATION
(Lemont, Cook County)

- Storm Water Treatment State of Illinois

DATE

- April 30, 1976

INTERVIEWED

- L.D. Brew, Director
Operations and Sales

In order to determine the current operating procedures employed at this facility for the treatment of waste water, an inspection was conducted.

Treatment of the storm water collected on the property consists of two ponds, which at one time were actually part of the I & M Canal. The east pond serves the tankage and loading areas located to the east. These tanks are not all individually diked. Therefore, if a spill were to occur, the material would be trapped in the east pond. The east pond is tributary to the west pond via a valve and a pipe. The valve is locked shut normally, and is opened only when the quality of the water in the pond is such that it will not adversely affect the west pond. At the time, the east pond was mostly empty. However, it did contain some reddish water, which was covered with oil. Brew said that the oil will be skimmed from the surface before the valve is opened.

The west pond receives flow from the east pond and effluent from the Alexander Chemical Company which is discharged to the east part of the pond. Not too long ago the effluent from Alexander was discharged to the west pond at the west end. Brew said that they thought that more treatment of the wastes could be accomplished by rerouting the effluent to the east end. This was done by digging a ditch to the east, which directed the flow to the proper place.

The discharge from the Alexander Chemical Company occurs to the rear (west) of the building into a ditch which runs from the north to the south into the second treatment pond. At one time this ditch flowed to the south and then to the east into a small creek that is tributary to the I & M Canal. An earth dam constructed in the ditch south of the outfall now directs the flow to the north.

There was a buildup of white and green solids in the ditch immediately downstream of the outfall. Brew said that the company cleans the used chlorine cylinders with sand, and occasionally some of the sand is discharged. According to Brew, Alexander does have a filter on their final effluent line. Most of the effluent is compressor cooling water.

A sample of the effluent discharge from the second pond to the I & M Canal was collected at 4:30 p.m. It appeared to be mostly clear, and no

unusual conditions were observed in the I & M Canal. Brew reported that the MSDGC had been to the plant this morning to collect a sample. Brew said that their sampling is frequent.

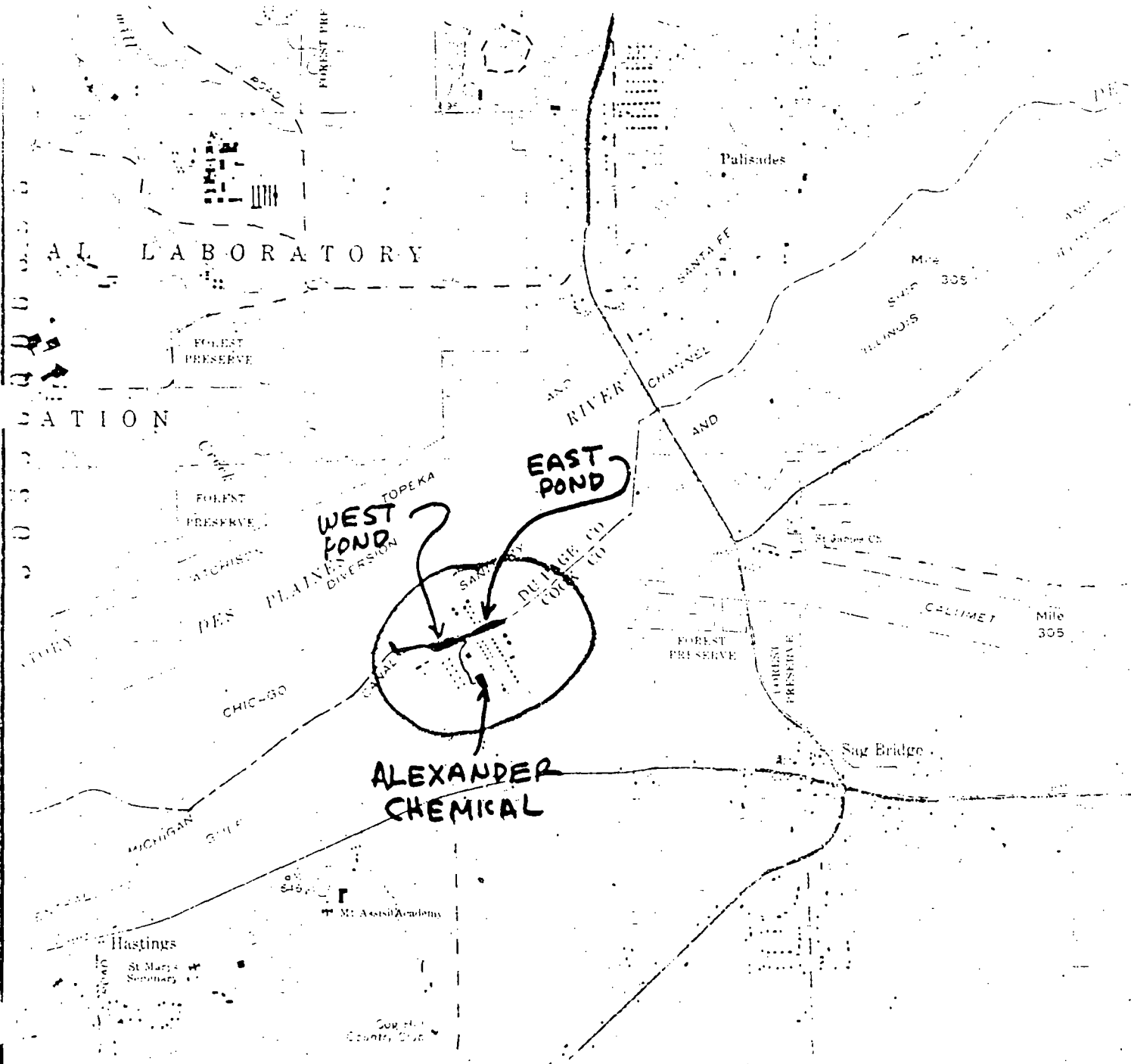
The samples were returned to the Chicago Laboratory for analysis. The results of the tests performed are attached.

Michael J. Schmitt

Michael J. Schmitt
Environmental Protection Engineer

MJS:rmk

6-10-76 - 6-11-76



WATER QUALITY AND WASTE TREATMENT WORKS EFFLUENT SAMPLING FORM

SAMPLE COLLECTED BY: LOCATION OF SAMPLING POINT:

HAS: SUB-BASIN OF WASTE TREATMENT: EFFLUENT:

SENT TO QUAL. OF RESULTS TO: SUB-BASIN OFFICE: FIELD COMMANDER OF ADDITIONAL:

CARD COL. 1: CARD COL. 2: CARD COL. 3:

2-5 CEA BASIN CHOD: 6-7 OC PLANT OR STATION NO: 8-10

11-13 COOS006 14-16 COOS006 17-19 COOS006

18 SAMPLE TYPE CODE: 18 SAMPLE TYPE CODE: 18 SAMPLE TYPE CODE:

19-20 21-22 23-24 25-26 27 28-30 31-32

19-20 21-22 23-24 25-26 27 28-30 31-32

19-20 21-22 23-24 25-26 27 28-30 31-32

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19-20 21-22 23-24 25-26 27 28-30 31-32

19-20 21-22 23-24 25-26 27 28-30 31-32

19-20 21-22 23-24 25-26 27 28-30 31-32

1. DOMESTIC WASTE ONLY
2. INDUSTRIAL WASTE ONLY
3. MIXED DOMESTIC & INDUSTRIAL WASTE
4. SURFACIAL LAKE OR RECEIVING WATER QUALITY
5. TREATMENT PLANT OR WASTE
6. OTHER OR TYPE UNKNOWN

SIGN BELOW FOR EFFLUENT SAMPLE

TRANSPORTED BY:

RECEIVED BY: TIME:

TRANSPORTED BY:

RECEIVED BY: TIME:

FOR LABORATORY USE ONLY

SAMPLE RECEIVED BY:

DATE REC'D: 4-30-76 TIME REC'D:

DATE ANALYSES COMPLETED: 5-11-76

DATE RESULTS FORWARDED: 5-12-76

TOTAL TESTS REQUIRED: 21 TESTS RUN: 21

LABORATORY: Chicago P. M. Schuchert

WFO 128 REV 1/77



TIGER LEASING GROUP

March 20, 1976

U.S. Environmental Protection Agency
Region V Enforcement Division
Attention: Compliance Section
230 South Dearborn
Chicago, Illinois 60604

RECEIVED

MAR 31 1976

Subject: North American Car Corporation

Sag-Junction Terminal - Alexander Chemical
Permit No. IL 0005126

ENVIRONMENTAL PROTECTION AGENCY
DIV. OF WATER POLLUTION CONTROL
REGIONAL OFFICE - SPRINGFIELD
STATE OF ILLINOIS

Gentlemen:

Results of tests on the following samples were received today:

<u>Sample Date</u>	<u>Hexane Solubles mg/l</u>	<u>Suspended Solids mg/l</u>	<u>pH</u>
2-17-76	24	40	10.4
2-18-76	12	82	11.5
3-05-76	18	120	8.9
3-08-76	13	80	9.2
3-09-76	24	22	8.7
3-18-76	6	41	8.9

Three of the six samples were above limits in Hexane Solubles; all were above limits in Suspended Solids and three of the six were above limits in pH.

On February 3 a gasket failed on a caustic soda tank resulting in a spill of caustic soda. This spill occurred within a diked area and all steps were taken to contain it and stop the leak. The Metropolitan Sanitary District was advised of this incident and they began frequent monitoring of our outfall. Our first indication of problems was in the change of appearance of the retention pond and a sampling program was begun. Reports of results of sample taken March 22 has not yet been received.

The sample taken March 22 was free of visible sediment and we believe that the sample will meet requirements. When results are received I will advise further.

Very truly yours,

A. M. Skogsberg

Director of Environmental Protection

AMS/cs

cc: W. H. Busch & J. Dale

CONFERENCE NOTES

SUBJECT:

North American Car Corporation - (Log #3382-73)
Alexander Chemical Division - Leont

RECEIVED

DATE:

November 16, 1973

PLACE:

IEPA Permits Office, Chicago

IN ATTENDANCE.

A. M. Skogsberg - N. American Car Corp.
R. H. Stevenson - Mid America Engineers
Paul Gambhir - IEPA - Permits, Chicago

ENVIRONMENTAL PROTECTION AGENCY
DES PLAINES POLLUTION CONTROL
PERMIT SECTION - SPRINGFIELD
STATE OF ILLINOIS

North American Car Corporation came in to discuss their Application for Permit (Log #3382-73) which was previously denied because of Rule 401(a) and because of the discharge exceeding BOD and TSS limits. The discharge is to I & M Canal which has a 7 day 10 year low flow frequency of zero.

Mr. Skogsberg indicated that a ditch downstream from their discharge carried the flow from I & M Canal to the Chicago Sanitary and Ship Canal and therefore their discharge should be governed by Ship Canal Standards. I informed him that he could discuss the matter with Standards Section.

I further informed him that in case he couldn't get the standards interpreted by standards section in away he wants, he can apply for a variance. As far as the Permit Section was concerned, he had to comply with the Standards as written and if he wanted the discharge to be considered as a discharge to the Ship Canal, he will have to construct a physical outlet to the Ship Canal. He felt that building a discharge conduit will be a waste and the I & M should be regarded as having the same effluent standards as Ship Canal. However, in light of the position of Permit Section, he'll pursue the courses of action suggested by us or eliminate the cavitette system discharge from the combined wastewater discharge. In case sanitary discharge is separated and a septic tank seepage field built for this source, the rest of the wastewater appears to be from sources other than those which could be classified as deoxygenating. Therefore, Rule 408 will be applicable which they feel they can comply with. They are going to do further work and resubmit their Application for Permit.

Surinder P. Gambhir

Surinder P. Gambhir
ENVIRONMENTAL PROTECTION ENGINEER
Permit Section
Des Plaines Basin Unit

SPG:ah

CC - William H. Busch, Permit Section

11/27/73

TELEPHONE NUMBERS

Reference
Number 17

Albrecht, Al. resident (708) 257-6605
Argonne National Laboratory (708) 252-2000
Ashland Chemical (708) 257-9300
Bodie Hoover Petroleum (708) 257-7781
Cook County Environmental Control, Maywood, Il. (708) 865-6171
Cog Hill Golf Club, Ken Lapp (708) 257-5451
Emulsion System of Illinois, Inc. (708) 257-5169
Franciscan Village, Ed Walera (708) 257-7776
Illinois Department of Conservation, Dick Lutz (217) 782-1807
Illinois Department of Transportation, Joe Putnam (217) 782-7820
IEPA, Springfield, Il., Lora Bryant, Manifest Search (217) 782-6760
IEPA, Maywood, Il., Mike Cimaglio (708) 531-5900
Illinois Water Survey, Champaign Il., T. Pridmoer (217) 333-4300
K-Five Asphalt (708) 257-5600
Lemont Public Library (708) 257-6541
Lemont Public Works, Mr. Dorris (708) 257-2532
Mt. Assissi Academy, Sister Denise Dzikas (708) 257-7844
Powell Duffryn Terminals, Inc. (708) 257-6222
St. Mary's Seminary, Father Spendov (708) 257-2494
U.S. Coast Guard, John Gilbert (708) 789-5830